THE CHEMIST AND DRUGGIST

TELEPHONE NUMBER 1852

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EXCHANGE COLUMN, PAGE 8.

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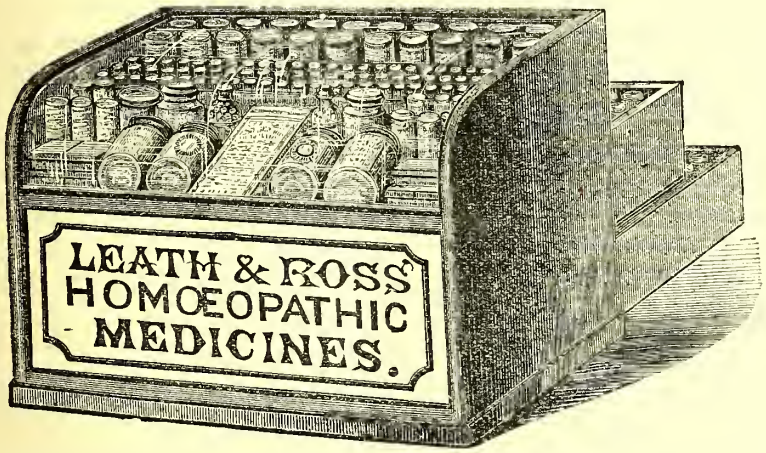

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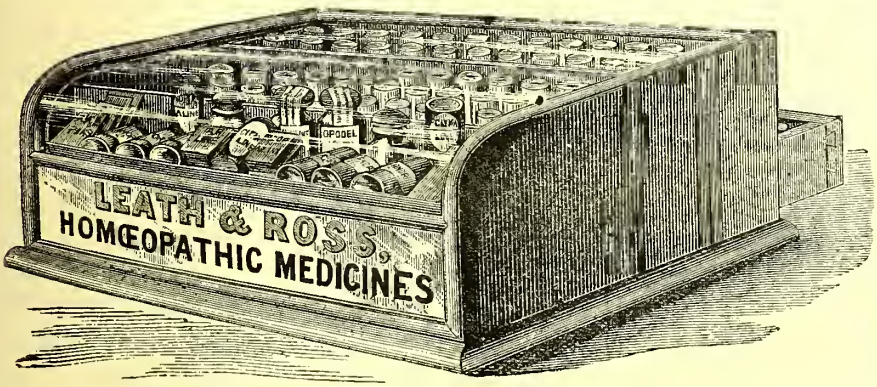

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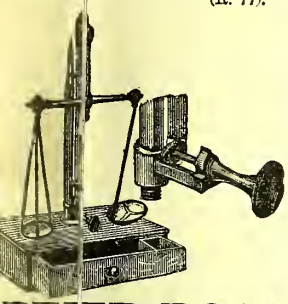

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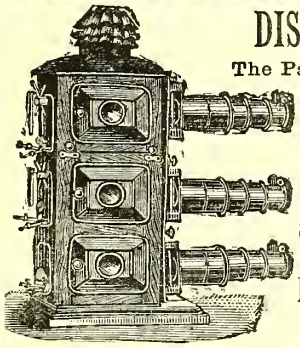

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Wm. Gill, Chemist, Nottingham, has for disposal the fittings of a chemist's shop; would suit herbalist or village chemist; to be sold cheap.

Two mahogany-top counters fitted with drawers, four specie jars, labelled, 19 in. height, with flat japanned covers; 48 1-lb. extract pots, japanned covers; 30 6-lb. stone pots, japanned covers. Apply to H. W. Perry, 463 Oxford Road, Reading.

Five 6-gal. carboys, 4 iron brackets for same, each containing three arms; three 3, three 2, one 1, all pear-shaped; five 1-gal. uprights, 215 shop rounds, mahogany cornice, nest of 36 drawers, surplus fittings. Brooks, 509 New Cross Road, S.E.

Miscellaneous.

Bracher's old pattern mixer, 1 cwt., 10*l.* 165/9.

20 gross long dispensing corks, 9*d.* gross; carriage paid; sample, one stamp. Eastman, Tottenham.

Why pay 1*s.* 4*d.*? 7 lbs. genuine Pontefract cakes, carriage paid, 6*s.*; sample free. Young, Castle Pharmacy, Pontefract.

Microscope objects, 6*d.* each, 5*s.* dozen, large variety; list; approval. Henry Ebbage, Framlingham.

Higginson's disconnecting enemas, best make, complete, 25*s.* per dozen. R. Tomlinson & Sons, Bond Street, Birmingham.

Menthols, and few other sundries, left over of an export order; will be sold as a job, and take a low price. Apply to Goode & Co., 21 Coleman Street, E.C.

Counters.—Set of 500 imitation guineas, all or part at 2*s.* 6*d.* hundred, soon be scarce, as cannot be made under new Act. Foster, Chemist, 80 Navigation Street, Birmingham.

Field glass, excellent, by Henry Lanrance; aneroid barometer, in carved oak case; silver-topped smelling bottles, new patterns; exchange for photo apparatus in good condition, good ding mill, or offers. Dunlop, 77 Dover Road, Folkestone.

Surplus Stocks, Cheap.—Baryta nit. pulv.; "Billy" oil; oleic acid; 3 ornamental g frames for window (pretty); 2 cigar ca g. percha tissue; fine ultramarine (pa oil spilt on it); De Jongh's cod-liver Newham & Pickard, Druggists, Sheffield

2 1½-gallon window carboys, cut stoppers; q pewter syringe, never used; Maw's "Dom tic" enema; brass, mahogany box, wanting, in good condition; 1-gall. silica carbon filter, new large iron mortar veterinary masses, ½ dozen each ladies' gentlemen's flesh gloves, Dinneford's pat clean; ¼ dozen 2*s.* 6*d.* Luddington's 1 dozen Holden's butter powder; Muspr "Chemistry," 2 vols., half calf, mar edges; what offers? Armstrong, Chem Kirkby Stephen.

For sale.—Dispensing screen, 6 ft. long, mir centre and marble slab, very handsome, flat plate-glass counter-case, 54 in. l second-hand, 50*s.*; 15 doz. new stopp shop rounds and jars, gold labelled, 8*l.* 12 ft. range pine drawers, french polis with gold labels and glass knobs, 6*l.* 12 ft. range mahogany ditto, with bev plate-glass labels, 9*l.* 10*s.*; dispensing 5 ft. long, 4*l.* 10*s.*; desk and glass case, 5 6 4-gall. carboys, 10*s.* each; ebonized pensing screen, second-hand, 54 in. long, ebonized wall case, 8 ft. long, 8*l.*; 24 best pink jars, gold labelled, 4*s.* 6*d.* ea bent front toothbrush case, 30*s.*; 12 blue jars, gold labelled, 30*s.*; nest 42 sec hand mahogany drawers, gold labelled, 4 long, 45*s.*; handsome globe lamp bracket, nearly new, any name, 4*l.* Tomlinson & Sons, Bond St., Constitut Hill, Birmingham.

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1883 Diary; state price, inclusive of posta Bevan, Chemist, Kilburn.

Greek-English Dictionary. Lowest price Charles, 185 High Street, Peckham.

Copy of *The Chemist and Druggist* of March 1887. Write first to 42/84.

Four-inch bongie-mould; must be perfect. A & Co., 108 Queen's Road, Bayswater, W.

Tin pure glycerine, 1·260; what offers? carria paid. Eastman, Tottenham.

Large iron mortar, also tincture-press. 8 Whee Gate, Nottingham.

Homœopathic show case; empty; state particulars. Hanson, Chemist, Cressing Liverpool.

Chemist & Druggist, last three years; also Be ley's "Structural Botany," recent editi J. Agar, 5 Castle Street, Swansea.

Wills's "Materia Medica," Pareira's "Select Travis, Kemp, Chemist, Chorlton-cu Hardy, Manchester.

"Manual of Diet" by Thomas K. Chambe two-grain pill-machine, good conditi Thornley, Chemist, Ripon.

Dental engine, pill machine (2 or 3 grai chemical balance. Stone's dispensing sca Address, Denbigh Pharmacy, Archer Stre Westbourne Grove, W.

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JANUARY 1, 1888.

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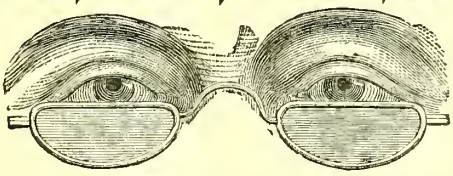

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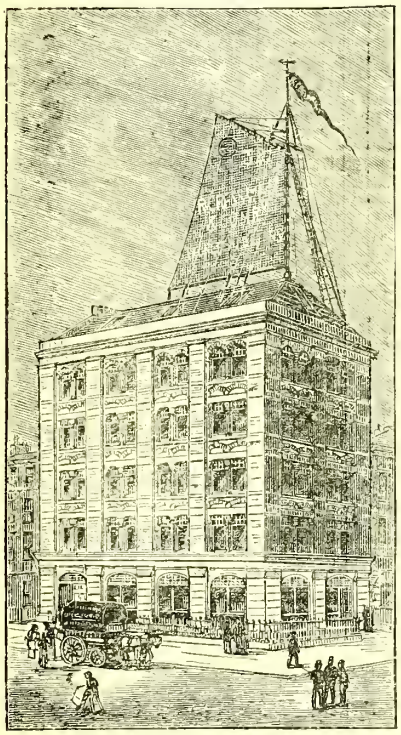

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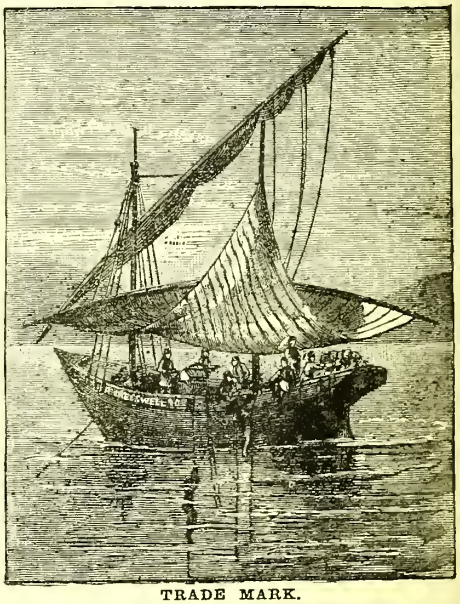

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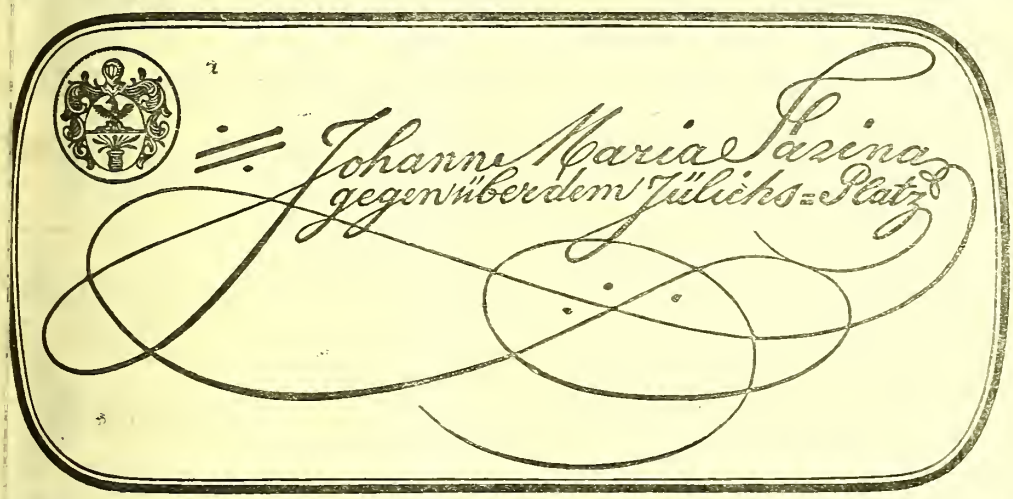

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I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has never been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 13*s.* 6*d.* per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

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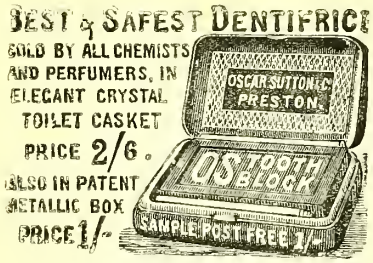

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No. 2.—Shorts	16/-	11/-
No. 3.—Shorts (finely Wickered) ...	21/3	16/6
No. 4.—Long Green Flasks	16/-	11/-
No. 5.—Wickered Bottles (Small)...	26/6	19/3
No. 6.—Wickered Bottles (Medium)	53/-	38/6
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OF

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Yours obediently,

COLEMAN & CO., LIMITED.

N.B.—The Wine is sold in Bottles, 2/9 and 4/6 each. Trade prices on application.

P.S.—We are willing to pay the **entire cost of a Retail Licence** (the holder of which can sell any kind of Wines) if an **assorted order of 12 dozen** is sent us of any of our preparations. List on application. Our **Liebig's Extract of Meat and Malt Wine WITHOUT QUININE** still commands a very large sale.

SOLE MANUFACTURERS—

COLEMAN & CO., LIMITED,

ST. GEORGE'S, NORWICH,

AND 3 NEW LONDON STREET, LONDON, E.C.

16

EIGHT PRIZE MEDALS AWARDED.

GOODALL'S HOUSEHOLD SPECIALITIES.

Yorkshire Relish

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s., and 2s. each.

CAUTION.—*On each Yorkshire Relish Label* is a Willow Pattern Plate and name, GOODALL, BACKHOUSE & CO. No other is genuine.

Goodall's Baking Powder

THE BEST IN THE WORLD.

Makes delicious Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1*d.* Packets; 1*d.*, 1*s.*, 2*s.*, and 5*s.* Tins.

Goodall's Quinine Wine

The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. In Bottles, 6*d.*, 1*s.*, and 2*s.* each.

Goodall's Custard Powder

For making delicious Custards without Eggs, in less time and at half the price. Unequalled for the purposes intended; will give the utmost satisfaction if the instructions given are implicitly followed. Sold in Boxes, 2*d.*, 6*d.*, and 1*s.* each.

Goodall's Blanc Mange Powder

Is acknowledged by all to be the most convenient and economical preparation ever introduced, as, by its use, a most Rich and Delicious Blanc-mange may be produced in a few minutes at a trifling cost, and may be had of various flavours, *i.e.*, Raspberry, Strawberry, Lemon, Almond, and Vanilla. Sold in Packets, 6*d.* and 1*s.* each.

Goodall's Egg Powder

Acknowledged to be the only real substitute for eggs yet discovered. Its action on Cakes, Puddings, &c., &c., resembles that of the egg in every particular, enriching them in colour and flavour, rendering them most wholesome and nutritious. One sixpenny tin will go as far as twenty-five eggs. In 1*d.* Packets; 6*d.*, 1*s.*, 2*s.* Tins.

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WHITE HORSE STREET, LEEDS.

A monthly Price List of Druggists' Sundries, Patent Medicines, &c., can be had post free on application.

RIZE MEDAL, International Health Exhibition, 1884. AWARD OF MERIT, International Medical and Sanitary Exhibition, London, 1881.

DIABETES.

VAN ABBOTT'S GLUTEN BREAD,

AND ALL SUITABLE FOODS FOR DIABETIC PATIENTS.

VAN ABBOTT'S ELIXIR of SACCHARIN and SACCHARIN PERLES for SWEETENING TEA, COFFEE, &c., are perfectly harmless to DIABETICS and all to whom Sugar is injurious.

VAN ABBOTT & SON are Manufacturing GLUTEN CAKES, BISCUITS, &c., SWEETENED with SACCHARIN for DIABETIC PATIENTS.

Full particulars on application. PAMPHLET, with DIABETIC and other DIETARY TABLES, COOKING RECEIPTS, Price List, &c., Post Free.

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DIABETIC INVALID, and INFANT DIETETIC DEPOT, 5 Princes Street, Cavendish Sq., LONDON, W.

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NESTLE'S MILK FOOD FOR INFANTS.

ALSO WELL ADAPTED FOR CHILDREN AND INVALIDS.

Prepared at VEVEY, SWITZERLAND.

The only Perfect Supplement and Substitute for Mother's Milk.

Easy of Preparation—requires merely the addition of water.

UNIVERSALLY RECOMMENDED BY PHYSICIANS.

THIRTY-THREE PRIZE MEDALS AWARDED to the FIRM.

GOLD MEDALS
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FRY'S
Pure Concentrated
COCOA

Prepared by a new and special scientific process securing extreme solubility, and developing the finest flavour of the cocoa.

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To H.R.H. The Prince of Wales, The Empress of Germany, &c.

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SPARKLING TABLE WATERS,

UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.
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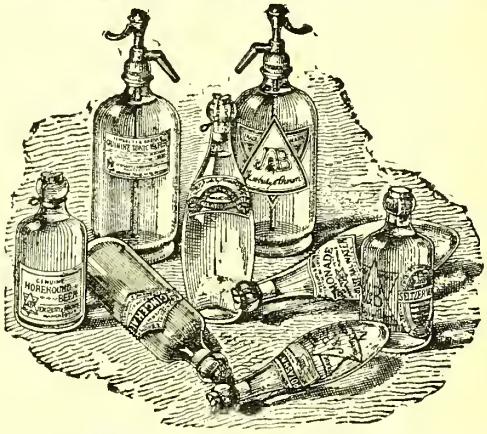
SIMPLE AËRATED WATER.



LEMONADE.
GINGER ALE.
QUININE TONIC.
GINGER BEER.
HOREHOUND BEER.

EXTRACTS FROM ANALYTICAL REPORTS.

"The examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."
FRANCIS JONES, F.R.S.E., F.C.S.

"On the whole, I have no hesitation in stating that your Aërated Waters are of the highest standard of purity which is practically attainable."
LOUIS SIEBOLD, F.I.C., F.C.S.

"The Lemonade is, for flavour and general excellence, superior to any similar compound which I have examined, and contains no acid but Citric Acid.
"I took a sample of the water used in your manufactory, in the preparation of the Aërated Waters, and found it, as was the case with the compounded, entirely *free* from lead, copper, *or any injurious* matter whatever."
C. ESTCOURT, F.C.S., F.C.I.

J. & B.'s Syphons are mounted with PURE BLOCK TIN, thus ensuring absolute immunity from dangerous metallic contamination.

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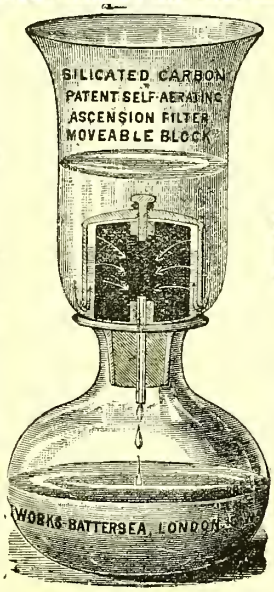
LEAD POISONING

LIBERAL DISCOUNT TO THE TRADE.



Glass Table Filters.

So commonly the result of Drinking Unfiltered Water is rendered

IMPOSSIBLE

BY USING

SILICATED CARBON

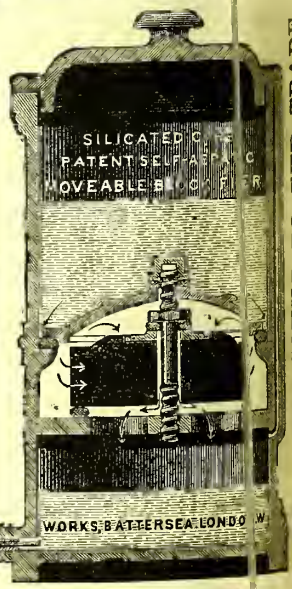
FILTERS

(AERATED)

Through which no particle of Lead can pass. This fact is attested by the leading analysts of the day.

"The most remarkable property of the Silicated Carbon Filter appears when its filtering power is tested in the removal of Lead from solution . . . I wish to dwell with the utmost emphasis upon the value of these Filters for removing Lead."
H. C. BARTLETT, Ph.D., F.C.S.

The Silicated Carbon Block can be Instantly Removed, leaving the whole of the Filter Open for Inspection and Cleansing



Domestic Filters.

LIBERAL DISCOUNT TO THE TRADE.

FOR PRICES AND FULL PARTICULARS, WRITE TO THE

SILICATED CARBON FILTER CO., BATTERSEA, LONDON, S.W.

TO AERATED WATER MANUFACTURERS.

HAY'S SOLUBLE ESSENCES

ARE GUARANTEED TO BE THE FINEST IN THE MARKET.

HONOURABLE MENTION: INTERNATIONAL FOOD EXHIBITION, AGRICULTURAL HALL, LONDON, OCTOBER, 1880. GOLD MEDAL: SOCIETY OF ARTS, PARIS, 1883.

TRADE MARK

REGISTERED.

HAY'S HOP ALE ESSENCE.

Supplies excellent stomachic, appetizing, and agreeable summer drink.
Brewers' Journal.

For this essence a brilliant future may be anticipated. It possesses characteristics very welcome to beer brewers."
Mineral Water Trade Review.

HAY'S HOP ALE.

This is an excellent Non-Alcoholic beverage."
The Lancet.

Evolves a delicious aroma of Hops."—*Medical Press.*

GINGER CHAMPAGNE.

(Made from Hay's Essence.)

"An excellent and most agreeable beverage."
The Lancet.

"Mr. Hay has caught the fine aroma of ginger with remarkable success. It is equally sparkling but more refreshing than its rival, the Royal French Beverage."
The Chemist and Druggist.

GINGER ALE.

(Made from Hay's Fortified Essence.)

"It pours out with as fine a 'head' as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger."
The Chemist and Druggist.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER.

A Pure Essence of the Finest Ginger, perfectly free from Capsicum. Highly adapted for the manufacture of **Transparent Aerated Waters**, and for all Dietetic, Medicinal, and Pharmaceutical purposes. **Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.**

HAY'S COMPOUND FORTIFIED ESSENCE OF JAMAICA GINGER. FOR FIRST QUALITY GINGER ALE.

Specially prepared for the manufacture of the very Finest Ginger Ale made, is an addition of Vanilla, Lemon, and other flavours to the above. It imparts with the exquisite **Ginger Aroma** of the above-mentioned Essence, a peculiarly fine fruity flavour, combined with the fullest amount of fragrance and pungency. **Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s.** Quantity required, five fluid ozs. to each gallon of Syrup, making 106 10-oz. bottles.

HAY'S GINGER ALE EXTRACT. FOR SECOND QUALITY GINGER ALE.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts **Pungency, Colouring**, great **Brilliancy**, and the unusually **Fine Ginger Flavour and Aroma**, and makes a thoroughly good article. **Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s.** Quantity required, three fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S GINGER ALE ESSENCE. Highly Concentrated. FOR THIRD QUALITY GINGER ALE.

This Essence, which is a complete Bonquet of Flavours in a highly concentrated state, makes a Ginger Ale possessing an amount of aroma, flavour and quality that will be sure to command a large sale, and that is unsurpassed by the so-called finest Belfast Ginger Ale. **Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d.** Quantity required, half a fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles. This Essence will be found most valuable to the general trade.

HAY'S GINGER CHAMPAGNE ESSENCE.

For the manufacture of Ginger Champagne. This Essence is a combination of the **finest flavours**, and imparts with the Ginger a **most exquisite aroma**, making a most delicious and refreshing approximation to Champagne. **Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d.** Quantity required, ten fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.

A magnificent Preparation, perfectly soluble, and makes the finest Lemonade obtainable. **Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s.** "Added in the proportion of one fluid oz. to each gallon of Syrup, the Soluble Essence imparts the most delicious flavour of the Lemon."—*The Chemists' Journal.*

HAY'S LEMON FLAVOUR. (Perfectly Soluble.)

Is prepared from the **Finest Messina Lemons**, and imparts to Lemonade all the **Fine Aroma and Flavour** of the fresh fruit. **An Exceptionally Fine Essence. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.** Quantity required, one and a half fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S HOP ALE ESSENCE.

This Essence is made from the **Choicest Hops grown**, and is unrivalled for its peculiarly fine **Hop flavour** and aroma. **Hop Ale** made from this Essence has the full flavour of the **finest Hops**, and is a really **appetising Bitter Beer. Trade price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s.** Quantity required, two fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

For Orange, Vanilla, and all other Essences send for Price List. [2]

W. HAY, Manufacturing Chemist, Beverley Rd., ENGLAND. HULL.

The difference between preparations made from **HAY'S ESSENCES** and those made from the numerous **SPURIOUS IMITATIONS** of them bearing the name of **SOLUBLE ESSENCES** is most marked, and no manufacturer using the latter can compete with one using **HAY'S PREPARATIONS**, as is universally known.

Therefore, to prevent disappointment, should specify that the Goods are to be of **HAY'S MANUFACTURE.**

BY ROYAL LETTERS PATENT.

HASSALL & CO.'S
PHOSPHO-CITRIC ACID

Is the Best, Purest, and most Economical Agent for Acidulating all Saccharine Beverages.
Price only **10***d.* per lb., in 9 and 18 gallon casks; **1***s.* per lb. in small quantities.

One Ounce Measure is equal to One Ounce of Citric. It produces a higher-class Beverage, and shows an economy of between £6 and £7 per cwt. We do not ask for an order, we merely solicit the favour of a trial.

3-oz. Sample for Postage (3 stamps), or 14 lbs. on approbation.

PAMPHLET GRATIS.

UNSOLICITED TESTIMONIALS.

We are pleased to be able to testify that your Phospho-Citric Acid is satisfactory under the most severe trials. We have placed Manufactured goods in which your Acid was used in a refrigerator for months, and also for nine months in a stove in which the temperature stands at over 150° day and night, and the bottles when examined to-day were as bright as the day they were put in. LONDON.

LEMON STREET, ABERDEEN.

I have pleasure in bearing testimony to the fact that first-class waters are produced, with greater body and finer fruity flavour, at half the cost of Citric; and further that your Acid is free from all traces of **LEAD**, generally found in the crystals.
I am persuaded that your Acid will ultimately command the Mineral Water Trade. Yours faithfully, WM. TIMSON.

"And may I also be permitted to add my testimony to the excellence of your Phospho Citric Acid; I consider it far and away preferable to Citric." C. H. ORTON, STOKE HOLDING.

FERMENTATION.

When Fermentation is present, Saccharine Beverages made with this Acid will keep sound and bright several days longer than those made with Crystal Acids.

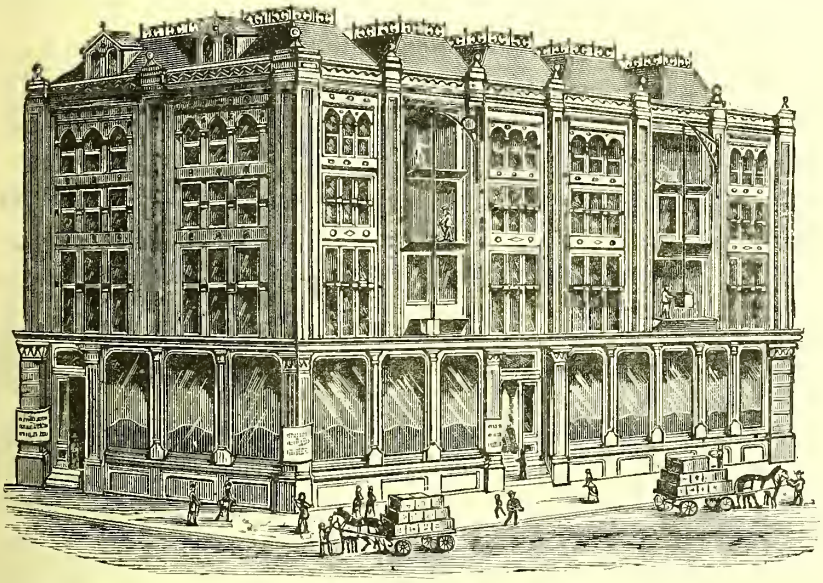
HASSALL & CO.
YORK ROAD, KING'S CROSS, LONDON.

TELEGRAMS:—"REMPUJARON LONDON."

HESELTINE'S

THE PREMIER TEA OF INDIA AND CEYLON, IS THEIR SPECIAL IMPORTATION AND THE PERFECTION OF TEA.

REGISTERED **"TAPRABUNDA"** TRADE MARK.



OFFICES AND DUTY PAID WAREHOUSES.

For Retail at 1s. 8d., 2s., and 2s. 6d.

In Lead Packets, ¼ lb., ½ lb., and 1 lb.

Terms of Agency, and Samples of the Tea, on application.

WM. HESELTINE & SON,

6 Wilson Street, and 1 & 3 Earl Street, Finsbury,

LONDON, E.C.

AGENTS WANTED WHERE NOT ALREADY REPRESENTED.

DESIRABLE & PROFITABLE AGENCY FOR CHEMISTS.

SPRING BLOSSOM CEYLON TEA.

Packed in three qualities, in handsome and attractive packages, and sent out in cases containing 40 lbs. each, to hold one size only, either 1 lb., ½ lb., or ¼ lb. Air-tight Tin Canisters, to sell retail at 2s., 2s. 6d., and 3s. per lb. Quarter Pound Samples on receipt of Stamps.

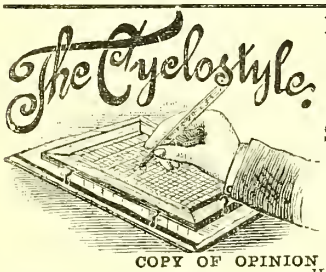
Terms—Cash, less discount of 3d. in the £, carriage paid, or Two months net on receipt of satisfactory London references.

Our Fortnightly Price Current Post Free on application.

CAVE, JOHNSON & CO., WHOLESALE TEA AND COFFEE DEALERS, **8 LIME ST., LONDON, E.C.**

BANKERS—WILLIAMS, DEACON & CO.

N.B.—This Tea being packed in Air-tight Tin Canisters is not liable to be deteriorated by the flavour of any other foreign substance.



IS THE BEST SYSTEM known for Printing Circulars, Notices, Price Lists, &c.

Simple, Rapid, Cleanly, Durable, and extremely Cheap in Working.

COPY OF OPINION OF A USER.

Henley-on-Thames, May 31st, 1887.

Gentlemen,—I have had a fair amount of experience in the use of various printing machines, and prefer the Cyclostyle to any other that I have used. *The Stencil is easily written, and the printing is especially cleanly and easy to work.*

I am, yours faithfully, ALEXANDER GROVES, Grocer, &c.

Prices of Apparatus complete. Note size, 21/; Letter size, 27/6; Foolscap, 31/6

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TYPE WRITER

Is the latest and by far the simplest Type Writer yet introduced.
It is absolutely simple and requires no learning.
After a little practice a speed of 40 words per minute can be obtained.
It prints very clearly, and different styles of Type can be supplied.
Prints on Post-cards, Envelopes, or Tags.
Weighs 4 lbs., and is only 12 in. long by 6 in. wide, therefore is very portable.
Re-inking of Type is extremely simple.
Chemists will find the Type Writer very useful for Labels &c.
It is, in fact, a strong, perfect Type Writer, and only One-third the price of any other similar Machines.

Price £2 2s. 0d. complete.

SPECIMENS OF WORK AND TESTIMONIALS ON APPLICATION TO THE

FACSIMILE APPARATUS CO.,

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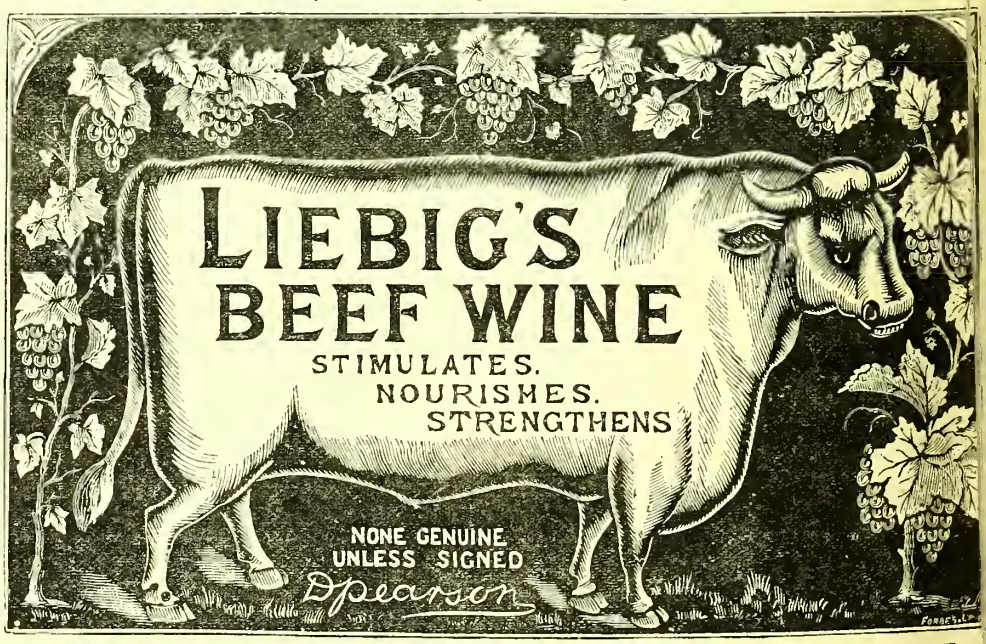
It is guaranteed that one glass of Liebig's Beef Wine contains more Nourishment and Strength than ten glasses of any other Wine.

JUSTLY FAMOUS FOR ITS HEALTH-GIVING QUALITIES.

Prize Medals Awarded—Liverpool and Glasgow, 1886 & 1887.



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Chief Ingredients—Essence of Beef, Choice Port Wine, Extract of Malt, and Quinine.

NO WINE LICENCE NECESSARY FOR ITS SALE.—*See Letter from Excise.*

Pints 2s. 9d., 21s. per dozen; quarts 4s. 6d., 39s. per dozen. Write for samples.

SOLE MANUFACTURERS—

LIEBIG'S WINE CO. 66 and 68 Highfield Street, Liverpool, and 12 St. Helen's Place, London, E.C.

MITRE TEA.

REGISTERED TRADE MARK.

AN UNIVERSAL REQUEST.

A VALUABLE AGENCY.

		To Retail at
The Mitre "Broken Leaf" Tea-	-	1/8
The Mitre "Thrift" (Whole Leaf) Tea -	-	1/8
The Mitre "Kee-mun" Mixture-	-	2/-

Wrapped for the Trade in ¼-lb., ½-lb., and 1-lb. Parcels.

Framed Show Cards, Enamelled Iron Tablets, Posters, Window Transfer, and Handbills, with Agent's name on supplied free. Newspaper and Railway Station Advertisements to suit the requirements of Agents. Applications for Agencies where unrepresented will receive prompt attention. Price Current and Pamphlet, with Terms, post free.

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KERFOOT'S SUGAR-COATED PILLS.

Having perfected the manufacture of Sugar-Coated Pills, and believing them to be greatly superior to Pearl-Coated Pills, I shall in future keep in stock and supply Sugar-Coated Pills only.

It is not too much to say that Sugar-Coated Pills prepared by my new process are simply the perfection of Coated Pills. It is well known that a large Sugar-Coated Pill is more easily swallowed than a much smaller Pill uncoated, or even Pearl Coated. A properly-prepared Sugar-Coated Pill, moreover, is attractive to the eye, while it conveys only the most pleasant sensations to the palate. It is the quick solubility of these Pills which causes them to be so easily swallowed, and it is to their rapid solution in either warm or cold fluids that their great superiority is due; for a Pill, however well or attractively coated, fails in activity if it is not capable of being rapidly disintegrated when immersed in a warm fluid.

Kerfoot's Sugar-Coated Pills are coated *without the application of any heat*, and have no resinous varnish to impede their solubility; they disintegrate with the utmost rapidity, even in cold water; their speedy solution in the warm fluids of the stomach, and consequent activity, are therefore assured.

All the Pills of the British Pharmacopœia and a variety of others are constantly in stock.

In addition to the ordinary Pills familiar to all Pharmacies, I have in course of preparation a new list of minute Pills, composed of very active ingredients, each finished Pill weighing one or two grains only, to which the title Granules has been given.

Chemists' private forms will be prepared with the utmost accuracy, and at a reasonable charge.

In a few days my new list of Sugar-Coated Pills and Granules will be ready, and I shall be pleased to forward it to any of my customers post free on application.

T. KERFOOT,

MANUFACTURING PHARMACEUTICAL CHEMIST,
Medlock Vale Works,
LONDON ROAD, MANCHESTER.

24

LOISETTE'S System of Memory Training is the ONLY one by which the Natural Memory can be so much improved that the System, as a Device, will be no more needed.

MARK TWAIN (Mr. S. L. Clemens) says of Professor Loisette: "He showed me how to LIGHT UP the dark cellar of my Memory." Languages learned rapidly.

MEMORY Prospectus (containing opinions of pupils who have PASSED EXAMINATIONS and of members of the Medical, Scholastic, Clerical, Military, and other Professions) post free from Professor LOISETTE, 37, New Oxford St., London.

AN ESTABLISHED NEW YORK COMMISSION AGENCY,

Representing well-known English Manufacturing Chemists, and now doing an extensive business with the Wholesale Drug Trade of America, can introduce Specialities to advantage. Correspondence solicited.

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M. PETERSON & CO.

(Established 1870),

75 ST. ANNE STREET, LIVERPOOL.

FOR HOME, FOREIGN, & COLONIAL MARKETS.

Vide Correspondence in 'CHEMIST & DRUGGIST' Oct. 8, 1887.

DISPENSING LABELS.

"Sir,—A short time ago I had occasion to renew my stock of orange-coloured labels for lotions, and it struck me a few India Rubber Stamps would be very useful, and would save my ordering a large supply of blanks. So I obtained stamps for 'The Lotion,' 'The Eye-Lotion,' 'The Liniment,' 'The Injection,' and 'The Wash.' With these I can take a printed heading to my labels suitable to the occasion. Yours truly, "Heder."

Specimens suitable for Stamping on Blank Labels.

THE LOTION. THE LINIMENT.

On Brass Mount, with Box, Pad, Ink, and Distributor complete, 2/; or a set of 12 in a large Box, with Pad, Ink, and Distributor complete, 18/

POLLARD'S RUBBER STAMP WORKS

30 & 32 LUDGATE HILL, LONDON, E.C.

HOLLOWAY'S PILLS & OINTMENT

Have the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT

Professor HOLLOWAY'S Establishment,
78 New Oxford St. (late 533 Oxford St.), London,

And sold at 1*s.* 1½*d.*, 2*s.* 9*d.*, 4*s.* 6*d.*, 11*s.*, 22*s.*, and 33*s.* each Box or Pot.

Chemists and Druggists selling "Holloway's Pills and Ointment" can on application to the above address, or to the Wholesale Houses with whom they deal, be supplied free of charge with Handbills and Posters with their name and address printed at foot.

Wholesale Terms see List of "Proprietary Articles" in most Price Currents.

PELLETIER'S QUININE.

Sulfate de Quinine des trois Cachets,
Pelletier, Delondre et Levaillant

SOLE AGENT—

CHAS. BRUMLEU,

7 Mincing Lane, LONDON, E.C.

dvards' BY ROYAL LETTERS PATENT.
HEST AWARD
Desiccated Soup.
national alth Exhibition, LONDON, 1884.
national hibition, LIVERPOOL, 1886.
Consists the finest Vegetables and Extract of Beef in a dry state.
Manufactu beg to direct the attention of the Trade to the above article, now handing a ly and remunerative sale. It is put up in a neat and attractive in 1-lb., ½, and ¼-lb. tins, to sell at 1s. 3d., 8d., and 4½d.; also in packets lining 1 oz. ld. These are packed in cases of 36 1-lb., 48 ½-lb., or 72 ¼-lb. the 1d. pa ts in gross and half-gross boxes, in cases of 12 gross; carriage, and cases t. A liberal supply of Show Cards, Glaciers, and printed matter, sting of Cl lars. Medical Testimonials, Press Opinions, and Counter Bills ng name a address.
Samy, with Terms, free on receipt of Business Card.
REK. KING & CO., LIM.
26 ARING STREET, BELFAST, and
and 6 CAMOMILE ST., E.C.

E NEL'S PERFECT HEALTH BISCUITS.
CHEMICAL LABORATORY.
54 Holborn Viaduct, E.C., London, Jan. 7, 1887.
rs. THE TERNATIONAL PATENTS ASSOCIATION.
ar Sirs,—ing submitted the sample of DE MIEL'S BISCUITS *lately ved from to a careful chemical analysis, we are enabled to report upon them llows:—*
ese Biscuit ve been found to contain considerable proportions of nitrogenous er and of co-hydrates; they are also especially rich in salts, which include a t amount ombined phosphoric acid. The flesh-producing, heat-giving bone-for ng *constituents of food are thus all represented in these Biscuits.* satisfactor ature is absence of excess of moisture, the baking having evidently conducted th care,
e Biscuits sessed an agreeable flavour; and they can be pronounced to be well e and of g quality.—We remain, faithfully yours,
ARTHUR HILL HASSALL, M.D., Lond.,
Author "Food: Its Adulterations and the Methods for their Detection."
EDWY GODWIN CLAYTON, F.I.C., F.C.S.
Liberal D unt to the Trade. Circulars and Particulars on application.
e INTERNATIONAL PATENTS ASSOCIATION,
15 NICHOLAS LANE, LONDON, E.C.,
MANUFACTURING CHEMISTS AND SUNDRIESMEN.

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LACK CURRANT LOZENGES
in Black rrant, old square 2/6
in Black rrant, rough oval 2/6
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Government Sanitary Co.
National Chemical Co.
New Carbolic Sanitary Co., Ld.
Sanitas Co.

DOG MEDICINES
Spratts (Patent)

DRUGGISTS' SUN.
Ayrton and Saunders
Evans, Lescher and Webb (Hawley's Counter Adjuncts)
Evans, Sons (Savars)
Hill, A. S., & Son
Idris and Co.
Lynch and Co.
May, Roberts and Co.
Newbery, F., and Sons
Sanger and Sons
Schutze and Co.
Sherlock, Bros.
Soul, W. H., and Co.
Thompson, Millard and Co.
Toogood, W.
Wood, Vincent

DRUMS, CANS, &c.
Noakes and Co.

DYES
Ayrton and Saunders
Pronk, Davis and Co.

EFFERVESCENT
Allen and Hanburys' (Saline)

ELECTRIC APPAR.
Colthurst & Harding (Electric Light Oil)
Darton, F., and Co.
Orme and Co.

EMBROCATION
Clark, W.
Elliman, Sons and Co.

ENEMAS
Bailey, W. H., and Son, (Apparatus)
Ingram and Son
Lynch and Co
Maw, Son and Thompson
Sanger and Son

ENGRAVERS
Barker, W., and Son

ESSENCES, FRUIT AND SOLUBLE
Bratby and Hinchliffe
Burgoyne, Burbidges and Co.
Bush, W. J., and Co.
Bush, W., Son and Co.
Carter, H. W., and Co.
Hay, W.
Idris and Co.
Lorimer and Co.
May and Baker
Oldfield, Pattison and Co.
Stevenson and Howell
Typke and King
Vogt, G.
Woolley, Sons and Co.

ESSENTIAL OILS
Bush, W., Son and Co.
Bush, W. J. (Lemons, &c.
Cocking (Japan Peppermint)
Evans, Sons and Co.
Jakson, J., and Co.
May and Baker
Nascio, Aveline and Co.
Rocke, Tompsitt (Eucalyptus)
Stallman and Fulton
Stevenson and Howell
Symes and Co.
Todd, A. M.
Vogt, G.
Warrick Brothers
Wright, Layman and Umney

ETHER
Duncan, Flockhart and Co. (Chloric)
Howards and Son
May and Baker
Robbins
White, A., and Sons

EXTRACT, MEAT
Australian Meat Co.
Brand and Co.
Coleman and Co.
Liebig Co.
Liebig's Wine Co.
Viking Food and Essence Co.

EXTRACTS, FLUID
Allen and Hanburys
Barber, G., and Co.
Burgoyne, Burbidges
Evans, Sons & Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire and Francis
Oldfield, Pattison and Co.
Potter and Clarke

EUCALINUM
Rocke, Tompsitt and Co. (Antiseptic Poultice and Vinegar)

FACE POWDERS
Chubb, J., and Co. (Violet)

FEEDING BOTTS.
Hearn, E. A., and Co.
Kilner Bros.
Maw, Son and Thompson
May Roberts and Co.
Pocock, Kecvil and Co.
Savars
Thompson, Millard
Toogood, W.

FILTERING
Doulton and Co.
Dunlop, Mitchell and Co.
Mawson Swan, and Weddell
Slack & Brownlow
Silicated Crbn Fltr Co.

FLY PAPERS
Ford, Shapland and Co.

FOAM PRODUCERS
Bush, W. J. and Co.

FOOD (Infants & Invalids
Allen and Hanburys
Benger's Pancreatised
Brand and Co. [islng)
Burroughs, Wellcome (Penton-
Goodall, Backhouse and Co.
Hearon, Squire (Malted)
International Patents Association (Dr. Meil's Health Biscts)
King, F., and Co. (Desiccated Soup)
Lazenby, E., and Son
Mottershead and Co. (Benger's Food)
Nestle, H.
Spring and Co. (Kef.)
Van Abbott (Diabetic)

GINGER ALE
Harston and Co.
Hay, W. (Essence)
Mills, R. M.

GLYCERINE
Fink
Martindale, W. (Nitro-Glycerine Tablets)
Maw, Son and Thompson
Price's Candle Co.

GRANULAR PREP.
Bishop., A, and Sons
Burroughs, Wellcome and Co.
Bush, W., and Co.
Curtis and Co.
Evans, Sons and Co.
Hearon, Squire and Francis
Wright, Layman and Umney

GUMS
Fink (Arabic, &c.)
Pronk, Davis and Co.

GUTTAPERCHA
Duncan, Flockhart

HAIR PREP.
Ayer, H. H. (Recamier)
Bates, F. W. (Frizzetta)
Brodie, J. (Imperial Hair Dye)
Capper, W. B. (Crinidone,
Chesebrough Mnfg. Co.
French Hygienic Co.

HERB BEER EXTS.
Newball and Mason
Potter and Clarke

HERBALISTS
Butler, McCulloch and Co.
Newball & Mason (Ext. of Herbs)
Potter and Clarke

HOMŒOPATHIC
Epps and Co.
Keene and Ashwell
Leath and Ross
Thompson and Capper

HONEY
Kemp and Son

HOP ALE ESSENCE
Hay, W.

HOSPITALS
London Homœopathic

HYPOPHOSPHITES
Duncan, Flockhart and Co.
Dunn and Co.
Fellows
Fletcher, Fletcher & Stevenson
Lorimer and Co.
Symes & Co.
Typke and King
Yeatman, F. J.

INK [See MARKING.]
Bewley and Draper
Duncan, Flockhart

INHALERS
Maw, Son and Thompson
Toogood, W

INSECTICIDES
Evans, Sons and Co.
Sanford
Steiner and Co.

KETCHUP
Tyrer, P.

LAMPS, LIGHTS, &c.
Albo-Carbon Gas Light
Clarke, Samuel ("Fairy")

LANOLINE
Burroughs, Wellcome and Co.

LARD
Ewen, J.

LEECHES
Fitch and Nottingham
Potter and Clarke

LIME JUICE
Feltoe and Sons (Spécialité)
Idris and Co.
Montserrat (*see* Evans)

LINSEED
Idris and Co.
Kemp, W., and Sons (Crushed)
Mumford, G. S.
Nell, R. J.

LINT
Liverpool Lint Co.
Maw, Son and Thompson
Newsome (Surgeons')
Robinson and Sons
Seabury and Johnson

LOZENGES
Allen and Hanburys
Blyton, Bage & Co. (Medicated
Craven, M. A., and Son
Evans, Sons and Co.
Gibson, R., and Sons (Manfrs.)
Hill and Son
Lorimer and Co.
Martindale, W. (Nitro-Glycerine Tablets)
Warrick Brothers

LOOFAHS
May, Roberts and Co.

MACHINERY
Bracher and Co.
Brinjes and Goodwin
Burroughs, Wellcome and Co.
Carter, J. H.
Dale, J., and Son
Melin, C. (Capsuling)
Pindar (Pill)
Sherwin
Werner and Pfleiderer

MAGIC LANTRNS
Hughes, C.
Perken, Son and Rayment

MAGNESIA
Bishop, A.
Bush, Son and Co.
Dinneford
Henry, T. and H. (Calcined
Murray, Sir James (Fluid)

MALT EXT., ETC
Allen and Hanburys
Burroughs, Wellcome and Co. (Malt Extract "Kepler")
Eckell's
Hearon, Squire and Francis
Liebig's Wine Co.
Lorimer and Co.
Paterson's Chemical Manufacturing Co.

MENTHOL
A 1 Menthol Depot, A. W. Shirley, Proprietor
Banner, E. R.
Cocking and Co.
Evans, Sons and Co.
Hockin Wilson and Co.
Maw, Son and Thompson
Newbery and Son
Shirley
Todd, A. M. (Crystal Oil of Peppermint)

MARKING INKS
Barber, G., and Co. (Crimson)
Christian, J.

MEDICINE CHSTS
Burroughs, Wellcome and Co.
Day, Son and Hewitt (Veterin.)
Day and Sons

MERCURIALS
Bush, W., and Co.
Howards and Sons
May and Baker

METHYLATED SPIRITS
Burrough, J.
Harvey, J. & W., and Co.
Jones and Co.
Macnair, J. & D.
Phillips, G., and Co.

METHYLENE
Robbins, J., and Co.

MICROSCOPES
Darton, F., and Co.
Perken, Son and Rayment

MIXING MCHNRY
Bracher and Co
Brinjes and Goodwin
Burroughs, Wellcome and Co.
Carter, J. H.
Sherwin, G. E.
Werner and Pfleiderer

MORPHIA
Macfarlan, J. F., and Co.
Smith, T. and H.
Wink, J. A., and Co.

MUSTARD
Banner, E. R. (Oil)
Johnson, J, H. and S, (Ess, Oil)

NIGHT LIGHTS, &c
Clarke, S

OILS, PAINTS, &c
Bingham Oil Refining Co.
Colthurst Harding
Gregory, (Devonshire Oil)
Vogeler, Charles A., Co (St. Jacobs Oil)

OINTMENT BASES
Bayley's
Bingham Oil Refining Co.
Burgess, Lion Ointment)
Burroughs Wellcome & Co. (Lanoline
Chesebrough (Vaseline)
De Pass, E., & Co. (Petroleum Jelly)
Grindley (
Singleton's Ointment

OPTICIANS
Darton, F. and Co.
Hughes, W
Perken, Son and Rayment
Raphael, J. and Co.

PAINTS [See OILS.]

PAPAIN FINKLER
Kuhn, B.

PARALDEHYDE
Zimmermann, A. and M.

PATENT AGENTS
Horn and S

PATENT MEDCNS.
Armbrecht, Nelson & Co. (Coca Wine)
Atkinson (Infant Preserv)
Barclay and Sons (General)
Beck, A. N. (Beck's Hop Bitters)
Beecham (Pills)
Beedzler, J., and Co.
British College (Morrison's)
Burgess, E. (Lion Ointment)
Crouch, F. (Wafers)
Edwards and Co.
Evans, Lescher (Hawley's Counter Adjuncts, Coated Pills, &c.)
Fenning's (Fevers)
Hirst, Brook and Hirst
Holloway (Pills and Oint.)
Hop Bitters (
Kemp, W. H. (Whoopoline)
Lalor (Phosphodyne, &c.)
Lincoln (Clarke's Mix.)
Locock, Dr. (Wafers)
Lynch and C
May, Roberts and Co.
Mundsy, J. (Election Day)
Newbery and Sons
Powell, T. (Balsam of Aniseed)
Ratti and Co. (Euphrosine
Richter's, Dr. (Pain Expeller)
Roberts (Forest)
Savars
Singleton's Eye Ointment
Soul, W. H., & Co.
St. Dalmas (Bronchial, &c.)
Swift Specific (The
Thompson, M and Co
Vogeler, The Charles A. Co

PERFUMERY, FANCY SOAPS,
[See EAU DE COLOGNE.]
Atkinson, J., & Co.
Atkinson, J. & E.
Ayer, H. H.
Barclay and S
Biggleston, E.
Brecknell, Tu and Co.
Burroughs, Wellcome and Co.
Chesebrough Manufacturing Co.
De Pass & Co. (Peach Blossom
Durrant, Geo.
Evans, Sons and Co.
Ewen (Soaps)
Hall's Wood Violet
Greensill, T, and Sons (Mona Bouquet
Mack, H.
Mann, C. A., & Co.
Maw, Son and Thompson
Newbery and S
Patey and Co.
Pear's Soap (Di Box)
Sainsbury, S. (Water)
Sanger and Son
Treatt, R. C.
Warrick Brothers
West, T. (Okell Sons)
Whitaker & Griffith
Woolley, Sons & Co. (Powder)

PEPPERMINT
Jakson, J., and
Todd A. M. (Crystal White Oil of Peppermint)

PEPSINE, &c.
Burroughs, Wellcome and Co.
Fletcher, Fletcher & Stevenson
Newbery (Inglavia)
Warner and C
Zimmermann

PEROX. OF HYDR.
Dunn and Co.
Robbins

PHOTOGRAPHIC
Botwright and Co. (Chemicals)
Howards and Sons
Perken, Son and Rayment
Marion and Co.
May and Baker
Thomas, R. W., Co., Lim.

PLASTERS
Burroughs, Wellcome and Co.
Mather, W.
Maw, Son and Thompson
St. Dalmas, A. D
Seabury and Johnson
Smith, W. F.

RM. EPS.
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CELA GDS.
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good (E.c. s, regist.)

MILIN
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INTIN
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nsend, J. eter)

POLISHING
Baumgartner (La Brillantine)
Bradley, Bourdas (Albatum)
Clark, W.
Oakey, John, and Sons

QUININE SALTS
Brumleau, C. (Pelletier's Quinine)
Howards and Sons
Zimmermann

RENNET
Benger's (Essence of)
Johnsen and Jörgensen

SACCHARINE
Allen and Hanburys
Burroughs, Wellcome and Co.

SALICINE
Macfarlan and Co.
Smith, T. and H., and Co.

SAUCES, PICKLES
Goodall, Backhouse and Co.
Lazenby (Harvey's)
Tyrer, P.

SEA SALT
The Maldon Crystal Salt Co.
Warren, A and J. (Stoddart's Sea Salt)

SCHOOLS OF PHARMACY, HOSPITALS, &c.
Edinburgh Classes
Liverpool School
London Homœopathic and Medical School
Manchester College
South London School of Pharmacy, Lim.
The School of Pharmacy
Tully, J.
Westminster College

SEALING WAX
Stewart, G., and Co.

SEIDLITZ PWDRS.
Chubb, J., and Co

SELTZOGENES
Evans, Sons, and Co.
Idris and Co.
May, Roberts and Co.

SHAVING
Dukas and Co. (Brushes)
Hovenden (Euxesis)
Lloyd, A. S. (Euxesis)

SOAP (SOFT, &c.)
Brecknell, Turner and Sons
Chiswick Soap Co.
De Pass and Co.
Maw, S., Son and Thompson
Pears' Soap
Whitaker and Grossmith

SHEEP DIP
Grindley and Co.

SHOP FITTERS
Bygrave, J. and W.
Evans, Sons and Co. (Show Crystals)
Howlett, S.
Natali, E. (Show Cases)
Yates, W. S.

SPECTACLES
Botwright and Grey
Darton, F., and Co.
Raphael and Co

SPIRIT
Boord and Son
Burrough (Pure & Methyl.)
Harvey, J. W., and Co.
Jones and Mason (Methyl.)
Macnair, J. & D.
Phillips and Co.

SPONGE
Burroughs, Wellcome and Co.
Cresswell Bros.
Cresswell, R., and Co.
Evans, Sons and Co.
Hutchinson, A., and Co. (Bags)
Maw, Son & Thompson (Bags)
Peterson, M.
Schutze and Co.
Sherlock Bros. (Sponge Bags)

STAMPS (RUBBER)
Pollard, A. W.
Richford, E. M.

STOPPERS
Austin and Co. (Sprinklers)
Barnett & Foster (The Eclipse)
Brooks, Peel (Sprinklers)
Lazenby, E., and Son (Barrett's Patent)

SURGICAL
Ayrton and Saunders
Bailey, W. H., and Son
De Pass and Co.
Haywood, J. H.
Hutchinson, A., and Co.
Ingram and Son
Liverpool Patent Lint Co.
Marks, A. A. (Artificl Limbs)
Maw, Son and Thompson
Newsome, C.
Robinson and Sons
Schutze and Co.
Thompson, Millard and Co.
Woolley, Sons and Co.
Wood, Vincent

STARCH
Critchley (Gloss)

STOVES
Clarke, S., & Co. (Gas Heating)

STROPHANTHUS
Burroughs, Wellcome and Co.

SUGAR
Gibson, R., and Sons

SYPHONS
Barnett and Foster
Idris and Co.
Kilner Bros.

SYRINGES
De Pass and Co.
Sumner, R. and Co.

SYRUPS
Fletcher, Fletcher (Liquors)
Idris and Co.

TEA
Cassell, J., & Co.
Cave, Johnson and Co.
Gt. Tower St. Tea Co.
Heseldine, Wm., and Son
Kearley and Tonge
Pearse and Wheatley
Spinner and Co.
Walker and Dalrymple

TEREBENE
Burroughs, Wellcome and Co.
Hearon, Squire and Co.

THERMOMETERS
Darton, F., and Co.
Maw, Son and Thompson
Perken, Son and Rayment
Raphael and Co.
Schutze, F., & Co.

TIN CANISTERS
Noakes, B., and Co.

TOILET REQUISTS
Downing, J. S. (Paper and Fixtures)
Rocke, Tompsitt and Co. (Toilet Vinegar)

TOOTH PASTE
Jewsbury and Brown
Maw, Son and Thompson
Sutton, O., and Co. (Black)
Woods, M. (Areca)

TRADE MARKS
Horn and Son

TRUSSES
Bailey, W. H., and Son
Colwell, H. M.
Haywood, J. H.
Lynch and Co.
Maw, Son and Thompson
Schutze and Co.

TYPE-WRITING
Facsimile Apparatus Co.
Pollard, A. W.
The Universal "Simplex" Type-Writer

VARNISH
Clark, W.
Colthurst and Harding
Pronk, Davis and Co.

VACCINE LYMPH
Association for the Supply of the Pure

URETHANE
Howards, Sons and Co.

VALUERS AND TRNSFR. AGNTS
Baker, P. C.
Orridge and Co.
Tomlinson and Sons

VERMIN KILLERS
Battle, J. R.
Sanford and Son
Steiner and Co.

VETERINARY
Clark, W.
Corner, R. (Devonshire Oils)
Day and Sons
Day, Son and Hewitt
Gregory, C. W.
Gregory, W.
James, R. J. (Blister)
Spratts (Dogs)

VINEGAR
Rothermel (Making)

WAFERS
Crouch, F. B. (Damiana)
Locock, Dr. (Pulmonic)

WHLESLE & EXPT DRUGGISTS
Allen and Hanburys
Barron, Squire and Co.
Burgess, Willows
Burgoyne, Burbridges
Bush, W., Son and Co.
Evans, Lescher and Webb
Evans, Sons and Co.
Evans, Sons and Mason (Lim.)
Harker, Stagg and Morgan
Hearon, Squire and Francis
Hewlett and Son
Lorimer and Co.
Hill and Son
Oldfield, Pattison and Co.
Potter & Clarke Amerier, &c.)
Southall Bros. and Barclay
Sumner, R., and Co.
Symes and Co.
Thompson, Millard and Co.
Thompson, H. A., and Son
Woolley, Jas., Sons and Co.
Wright, Layman and Umna
Wyleys and Co.

WINES AND SPTS
Boord and Son
Coleman and Co.
Durrant, G. (Orange)
Goodall, Backhouse and Co.
Idris & Co. (Quinne Wne)
Ingram and Royle
Liebig's Wine Co.
Phillips, G., and Co. (Pure Spirits of Wine)
Robinson, B. (Orange)

WOOD WOOL
Sanitary Wood Wool Co.

EWBERY'S OVAL PEDESTAL PILL VASES

REGISTERED PATTERNS.

PRICES MATERIALLY REDUCED.

EE NEWBERY'S 1887 CATALOGUE.

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BETTS & CO., LIMITED

(ESTABLISHED IN 1840),

SOLE MAKERS IN GREAT BRITAIN OF

METALLIC CAPSULES,

AND PATENTEES OF THE

COLOURED SIDE MARK, LABEL, AND OTHER SPECIALITY CAPSULES

(For the Prevention of Fraud and Refilling of Old Labelled Bottles), as supplied to Bass & Co., Hennes and Martell Cognac, and the leading Brewers and Bottlers of Wines and Spirits throughout Europe.

PLAIN ORDINARY CAPSULES,

For Small Phials, 2*s.* 6*d.* and upwards per 1,000, according to size, style, design, and quantity.

SPECIAL CONTRACTS FOR CONTINUOUS DEALING.

Manufacturers of Pure English-made Bottling and Package Tinfoil, from 1*s.* per lb. and upwards; **Mixed Foil** (Foreign Quality), from 6d. per lb. (according to gauge) Patent **Barrel Packages and Snuff Canisters, Tea Packages, &c.**

COLLAPSIBLE TUBES AND SPRINKLERS

FOR PERFUMERS AND OTHERS.

MANUFACTORIES:—LONDON: Chief Office and Factories, Wharf Road, City Road, E.C.; and Holloway and Batavia Mills, Holloway, N.W.—BIRMINGHAM: Moor Green Fields.—PARIS: Office, 65 Rue Verrerie.—BORDEAUX: Office, 3 Quai de Chartrons; Factory, Moniépos, Floirac.

PATENTEES OF HYDRAULIC & MECHANICAL PRESSURE CAPSULING MACHINES,

ESPECIALLY ADAPTED FOR CHEMISTS' COUNTERS.

Largely in use by the Trade, and efficiency guaranteed for all sizes of Bottles, at Royalties from 5*s.* to £2 2*s.* per annum.

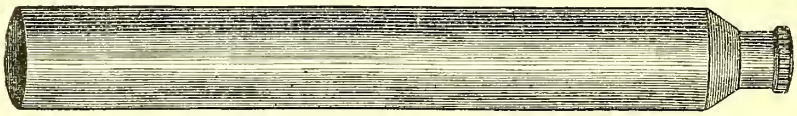
H. BROOKS, PEEL & CO.

[ESTAB. 1810.

COLLAPSIBLE TUBE MANUFACTURERS,

Patentees and Sole Manufacturers of the PORTABLE METAL SPRINKLER STOPPER, and Dealers in GLASS BOTTLES FOR PERFUMERS AND OTHERS.

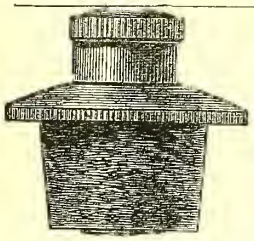
Steam Factories: 31 Lyme Street, Camden Road (Offices), and Bartholomew Road, Kentish Town, London, N.W.



COLLAPSIBLE TUBES

OF ALL SIZES

For Perfumes, Artists' Colours, Soap, Cosmetiques, Creams, Oils, Varnishes, &c. These Tubes are inexpensive and portable, and may be applied to many useful purposes besides the above mentioned.



SOLE MANUFACTURERS AND PATENTEES OF

THE PORTABLE METAL SPRINKLER STOPPER,

With Cork fitted thereon for bottles of any size, and having apertures of various dimensions, especially adapted for Perfumes, Hair Washes, Lime and Glycerine Essences, &c These handsome stoppers give a character and finish to the most ordinary bottles to which they may be applied. Gilt or plain; and put up if required in handsome glass lid boxes, suitable for shop counters and show cases, at moderate prices.

THE "TORSION" PATENT SPRINKLER

No. 18a.

The two designs, Nos. 18A and 19A, are those to which we direct special attention, as sizes being in general use other sizes will follow promptly to meet all requirements, on which Caps with two or more holes will be introduced to meet the public taste.

Particular attention is called to the latest improvement in our Patent Metallic Stopper, the "Torsion."

This New Stopper adheres to the design of the original patent, which has been universally acknowledged as an ornamental and inexpensive article for the Toilette, as possessing all the advantages of a "Permanent and Indestructible Stopper, suitable for Bottles of all Sizes and Shapes," with the additional security it affords, that the Cap can never be entirely unscrewed, consequently it cannot be lost. It is specially effective as a Sprinkler, while giving a more prompt and copious, yet economic, supply, through the improved action of the Cap. Such combined advantages, in an article of exquisite finish, have long been desired, and it is thus submitted for general approval, and its usefulness when tried will be appreciated by all.

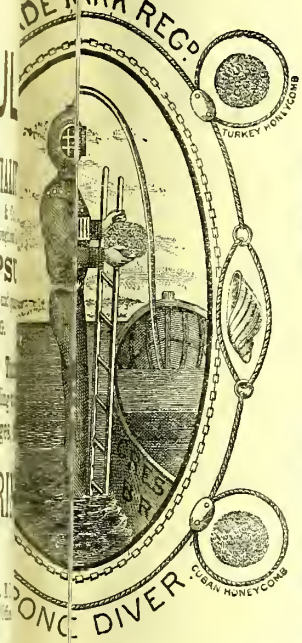
Illustrations, Price Lists, &c., can be had on application, or through any Wholesale House in town or country. All orders received direct will be promptly attended to.

CAUTION.—All Stoppers of our Manufacture are made of Pure Tin, and have the name of H. BROOKS & CO. stamped on the under side of the rim.

No. 19a.

All Tubes are made of Pure Tin unless specially ordered of Mixed Metal, from the smallest size up to 13 in. by 2⅜.

EAD-QUARTERS FOR SPONGES.



ASO'S WHY CRESSWELL BROTHERS' SPONGES ARE THE BEST AND CHEAPEST:—

RESSVELL BROTHERS are the ONLY FIRM who have their own buying establishments on the eries, nd who hold the whole process of the Sponge business in their own hands. They thus in the supplies cheaper than any house in the trade, and can consequently sell cheaper.

RESSVELL BROTHERS execute all orders from the LARGEST and BEST ASSORTED Stock in the d. Te requirements of every customer can therefore be effectually studied and complied with.

RESSVELL BROTHERS' Sponges are personally selected on the Fisheries, and are the best that re pr luces. All C. B.'s customers can depend upon receiving the qualities best adapted for their e, as B.'s Sponges are originally selected with a view to suiting each particular class of trade.

FACT VERSUS FICTION.

ers ar cautioned against being misled by bombastic advertisements and circulars which contain r tot ly unfounded statements, or grossly exaggerated facts. Cresswell BROTHERS' statements are founded on FACTS and can be substantiated to the fullest.

ying e ablishments at Ægina (Greece) and Calymnos (Turkey); Nassau, Bahama Islands, and Key West, Florida.

LE AGENTS FOR THE CUBAN SPONGE FISHING COMPANY.

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AGENCIES IN ALL THE MOST IMPORTANT EUROPEAN AND COLONIAL CENTRES.

s of Sp ges should never purchase without first writing to Cresswell Brothers for samples and prices. They can then be sure that they will get WHAT THEY WANT.

WRITE FOR NEW EDITION OF ILLUSTRATED PRICE LIST.

ESSVELL BROTHERS, 2 Red Lion Sq. (next to Church), LONDON, W.C.

No connection whatever with a Company trading under a similar name in the same square.

COCA WINE

(ERYTHROXYLON COCA).

FOR FATIGUE OF MIND AND BODY.

A NEW RESTORATIVE TONIC OF VOCAL, MENTAL, AND PHYSICAL POWERS.

Particularly useful in Hot and Enervating Climates.

VARIETIES.

Coca Wine Medium
Coca Wine Burgundy
Coca Wine Malaga
Coca Wine Port

25 New Walk Terrace York
June 28th 1887

Dear Sirs, I have been delighted with the samples of Coca Wine which you have sent me. There is a minute animalcule which is dissipated by the heat of summer, & which revives on the application of a drop of water; Armbrecht's Coca Wine has a similar effect in reviving & restoring the exhausted energies of the human economy & its sustaining & strengthening powers are marvellous.

Edward Allen
Lecturer on Anatomy & Physiology at the York School of Medicine

Coca Wine Sherry
ALSO
Vin mousseux de Coca très sec
(Very Dry Coca Champagne),
IN QUARTS AND PINTS.

THE RETAIL PRICE OF THE FIRST FIVE SORTS IS

4s. 6d. per Bottle, or 48s. per Dozen Box.

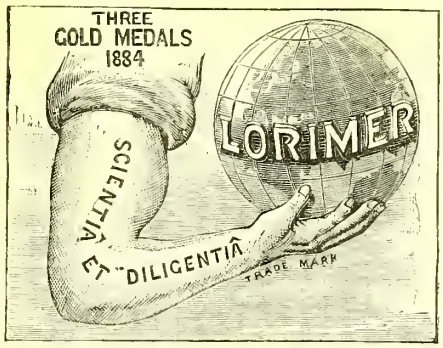
Champagne Quarts - 56s. per doz.
Champagne Pints - 33s. „

For sleeplessness this Wine is almost always successful, and superior to Opiates, Chloral, and Bromides, &c., as it produces no reaction.

Each wineglassful contains the extractive properties of one drachm of green Huanuca Coca leaves.

ARMBRECHT, NELSON & CO., 2 Duke Street, Grosvenor Square.

Gold Medal, London.



Two Gold Medals, Calcutta.

LORIMER & CO.

Manufacturing Chemists, Wholesale Druggists AND SPECIALISTS,

BRITANNIA ROW, ISLINGTON, LONDON, N.

Telegraphic Address—"CALISAYIN LONDON." Telephone No. 7524.

CHEMISTS wishing to keep abreast of the times, and increase their return, profits, and position should apply for our Lists, and compare our prices and terms before placing another order.

CHEMISTS who publish Price Lists will please apply to us for advertisements stating their terms, &c. Certain of our Specialities are in ready demand, and yield a higher profit than any other Proprietary Goods on the market, and are not subject to the same competition in price.

OUR MANUFACTURES INCLUDE

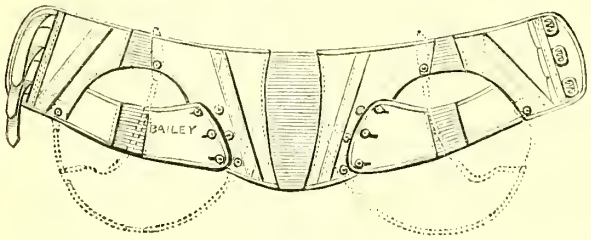
Citrate of Iron and Quinine, Granular Effervescent Citrate of Magnesia, Flavouring Essences, Parrish's Syrup, Syrup of the Hypophosphites (Lorimer), Quinine, and Coca Wine, Medicated Lozenges, Lime Juice Cordials, Pearl, Sugar, and Gelatine Coated Pills, Extract of Malt, Ketchups, Sauces, Jellies, &c.

THE REASON WHY

BY ROYAL LETTERS PATENT.

BAILEY'S PATENT ABDOMINAL BELTS

Have a **LARGE HOME, FOREIGN, AND COLONIAL SALE** is because they are the only Belts which do not result in disappointment. The difficulty of obtaining a proper fit, except at the hands of an experienced fitter, is well known. These Belts, however, are **"SELF-ADJUSTING," "CANNOT RUCK UP,"** and adapt themselves so thoroughly that **A MISFIT IS IMPOSSIBLE.**—*Vide* "LANCET," "BRITISH MEDICAL JOURNAL," &c.



For Measurement: Circumference of Abdomen at the largest part and Hips.

No. 1.—FOR GENERAL SUPPORT (as fig.)

No. 2.—FOR PREGNANCY. Capable of great expansion.

No. 3.—FOR PROLAPSUS UTERI. With Improved Indiarubber Perineal Pad and Regulating Straps.

No. 4.—FOR UMBILICAL HERNIA With Air Pad.

No. 5.—GENT'S RIDING BELT.

(Nos. 2 to 5 ARE MADE IN FOUR QUALITIES, AT PRICES TO SUIT ALL CLASSES.)

THE DISCOUNTS TO SHIPPERS AND THE TRADE ARE THE BEST.

Full particulars post free to all parts of the World. Correspondence invited.

W. H. BAILEY & SON, 38 OXFORD ST., LONDON, W.

Telegrams—
"LINT LIVERPOOL."

LINT.

MANUFACTURERS OF

FLAX, & COTTON,

LINTS,

ABSORBENT, AND CARDED

COTTON WOOLS,

ABSORBENT, OPEN WHITE, and GREY,

BANDAGES,

SURGEON'S, AND CARBOLIZED

TOW.

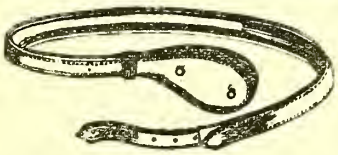
THE

LIVERPOOL PATENT LINT CO.,

MARK ST. MILLS,

NETHERFIELD ROAD NORTH,

LIVERPOOL.



TRUSSES.

FIG. 1. FIG. 2.

The Best and Cheapest Trusses of all kinds in the Wholesale and Export Market are manufactured by

H. M. COLWELL.

ELASTIC STOCKINGS, SUSPENDERS, AND SURGICAL BANDAGES OF ALL KINDS.

WHOLESALE AND EXPORT.

THE LARGEST SHIPPERS IN THE TRADE.

Revised Price List Illustrated, with Samples, forwarded Post Free to any Address.

Estab. 1832.] 116 NEWINGTON CAUSEWAY, LONDON, S.E. [Estab. 1832.

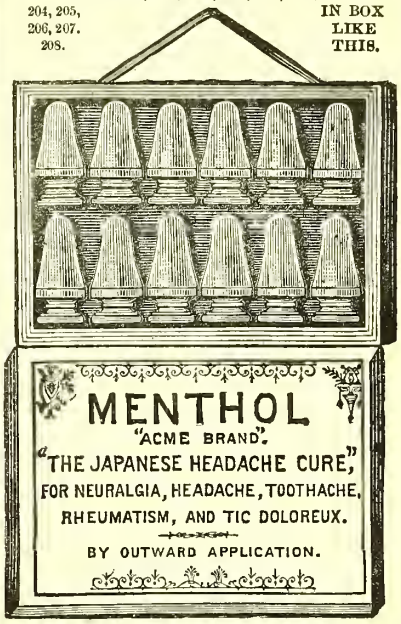
BEST AND CHEAPEST."

uld b handled by every Druggist, as they leave e Prit, and give more satisfaction than any Bra l. Twenty-two Patterns to select from.

ordering ase quote Numbers to avoid mistakes. Cones supplied loose at lowest prices.

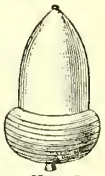
ONLY PURE JAPAN MENTHOL USED

Nos. 161, 162, 163, 201, 202, 203, 204, 205, 206, 207. 208. IN BOX LIKE THIS.



No. 200.

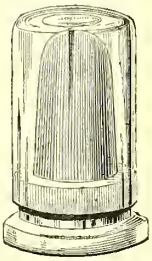
No. 202.



No. 163.

Nos. 203, 205, 206.

Nos. 88 & 162.



No. 214.

TEST OVELTY.—No. 217 Glass Show Bottle, as No. 214, 3/3 per doz., the best and largest 6d. Cone made.

89, 90, an 2.

No. 201.

No.		Per dozen	Size
88.	Hard Wood Boxes, Pedestal Shape	2/6	1/
89.	Nickel Screw Capped Bottles	4/6	1/
90.	" " "	3/8	9d.
92.	" " "	2/6	6d.
161.	Boxwood Boxes, Acorn Shape	4/2	1/
162.	" " Pedestal " Screw Lids	3/11	1/
163.	Vegetable Ivory, Acorn Shape	5/0	1/
200.	Boxwood Boxes, Pedestal "	3/0	6d.
201.	" " Barrel " Screw Lids	3/11	1/
201B.	" " " " Extra Large Cone	5/10	1/
202.	" " Bullet "	3/11	1/
203.	" " Cone "	3/11	1/
204.	Vegetable Ivory, Castle Shape	5/10	1/
205.	Boxwood Boxes, Cone Shape, each in box	3/3	6d.
206.	" " as No. 203, Large Size	4/8	1/
207.	" " Draughtsman Shape	4/11	1/
208.	Vegetable Ivory, " "	6/6	1/
210.	Boxwood Boxes, Acorns, Nckl Pltd. Caps	5/4	1/
211.	Vegetable Ivory Boxes " "	5/10	1/
212.	Boxwood Boxes, Bullet Shape, reversible end	4/8	1/
213.	Menthol Charms for Watch Chains, &c.	2/8	6d.
214.	Glass Show Bottle, with Cone on Stopper	5/10	1/
216B.	Boxwood Boxes, Beer Bottle Shape, Large Cone	5/10	1/

209.—Nickel Plated Pencil, with Menthol at end, 1/ size, 4/6 per doz.

A Sample Box containing one each of above, 6/; by post 7/.

In ordering through Merchants and the Wholesale Trade, from whom our preparations may be had at above prices, please state distinctly

Nos. 161, 210, and 211.

per cent Discount for Cash with Order.

"ACME BRAND" AND HOCKIN'S.

Special Quotations for Large Quantities.

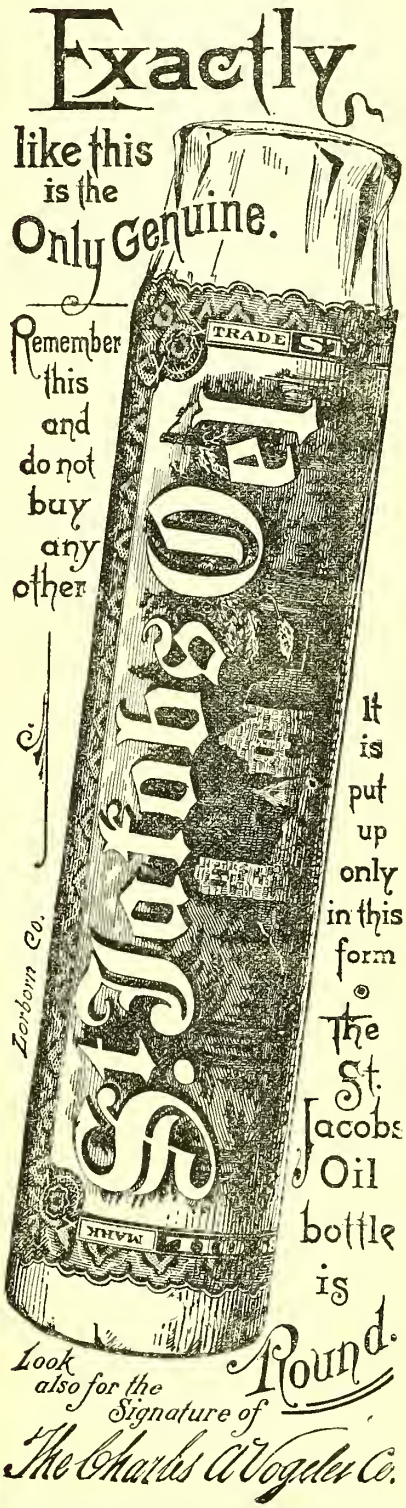
MANUFACTURED BY

HOCKIN, WILSON & Co.

3 DUKE STREET, MANCHESTER SQUARE, LONDON, W.

"ST. JACOBS OIL" v. "ST. JOSEPHS OIL."

AN IMPORTANT DECISION.



On the 3rd of February, 1888, in the Hig Court of Justice, Chancery Division, London, a pe etual injunction with costs was granted against the ma facturers of a so-called St. Josephs Oil, ordering that the efendant, his servants and agents be perpetually restr ned from infringing the Plaintiffs' Trade Mark, "St. JAC BS OIL," and from selling, or offering for sale, any me cal compound under a name or title of St. Josephs O or using said title or any other title resembling the sar , or only colourably differing therefrom, and from pass g off, or attempting to pass off, and from enabling others pass off any medical compound not of the Plaintiffs' ma ufacture, as or for the goods of the Plaintiff Com ny, the Charles A. Vogeler Company, of 45 Farring on Road, London, by the use of the words ST. JOSE IS OIL, or in any other way.

This decision for ever prohibits the use of the term "ST. JOSEPHS OIL," or any other similar terms, or any other title or terms similar, to those used by the Charles A. Vogeler Company in connection with "ST. JACOBS OIL."

In publishing this decision in the columns f "The Chemist and Druggist," we are aware that me will reach all Chemists and Dealers throughout t United Kingdom, and we desire to improve this oppo nity to thank the trade, the trade journals, and the pr for the generous support and encouragement which t y have invariably given us in our effort to protect o Trade Mark rights, not only in the case above menti ed, but in various other cases of a similar nature, in all which we have been successful in the end, not having t lost a single case which we have prosecuted. We ha much pleasure in now stating that we have not a sing case of attempting to infringe our Trade Mark in the Co ts, and we feel that we have to largely thank the trade d the press that such is the fact. We shall continue t phold and extend the reputation and popularity of ST. COBS OIL by original, extensive, and dignified advert g.

THE CHARLES A. VOGELER CO.

45 FARRINGDON ROAD, LONDON.

Telephone No. 6714. *Cable and Telegraphic Address,* "Rumatix London."

Malt Extract versus Beer.

Fermented Malt Extracts.

manufacturing Extract of Malt, the point of all ts is to prevent fermentation taking place, hen this is allowed to occur it is, of course, at expense of the nutritious ingredients of the grain. nutritive worth of a fermented malt extract is tically *nil*, and even if it be claimed that the ol in it is a food, it may be observed that there ery little of it present. What the well known neyer ys is significant. "For several years ," he ites, "instead of prescribing cod liver which was formerly in the habit of doing, I emplied almost exclusively extract of malt, with the very best results. *This substance must be confounded with the other so-called Malt Extracts*, h are only a kind of beer often injurious to nts."

In Extract of Malt," writes Dr. Lersch, "the nce of alcohol and carbonic acid is to be rved. In beer there is only about one-fifteenth act. The largest part of the extractive substance extrin."

he many who have visited our factory and laboratory at Wadsworth are well aware of the care taken, the complicated apparatus used, in making the pler Malt Extract so that it may not undergo entation. What Dr. James Edmunds observes is t all who know must assent to, viz.:

The Kepler Extract is free from alcohol, while it tains all the nutrient constituents of the malt in a ble form."

Malt Extract with Co_2 and Alcohol.

f it be desired to give Kepler Extract of Malt and it, too both may be added to a little milk, peptised with Fairchild Peptonising Powders, and will a tonsome and sustaining stimulant and food. f the presence of carbonic acid is wanted, the pler Malt Extract with aerated water, as seltzer, s a richly diastasic "sweet-wort"—a most cious beverage for those suffering with fever, ric ulcer, gastric catarrh, or the dyspeptic disrs of phthisis. A little of it may also be given pepsised milk alone, say every 40 minutes, in s of severe illness.

The Faults with Jumbled Malts.

reference to authorities quickly shows what al is the best to make Malt Extract of.

Miller's "Chemistry" we read:—"Other ns, such as wheat, oats, rye, and even Indian , may be malted, but experience has shown that barley is the grain best adapted to the process. It yields the largest quantity of diastase."

In his "Chemistry," Vol. I., Muspratt says:—"Any of the cereals may be employed in the preparation of malt, but barley is preferred for this purpose, because experience has demonstrated that it yields the greatest percentage of diastase."

Again, Bersch says:—"In the manufacture of malt, those grains only are used in which, during germination, diastase is developed, and among these *barley takes the first rank*."

Now, in making Malt Extract it is very clear that if any other cereal is substituted for barley, to that extent is the extract of something ostensively inferior for the purpose to barley.

"In *malted barley*," writes Sir William Roberts, "we have at command an unlimited supply of diastasic power."

The Kepler Malt Extract is made from barley only.

Cheap Malt Extracts.

These are the dearest of all in the end. The dose, for example, of a malt extract which costs 1*s.* per bottle, is double that of Kepler's, and the quantity in each bottle less than half. Moreover, an objection to many malt extracts is the glucose they contain. Maltose belongs to the sucroses and not glucoses, which are directly fermentable in the presence of yeast, and thus may be distinguished from the sucroses (Roscoe). Glucose is apt to "sour the stomach;" maltose is not.

Constituents of Kepler Malt Ext:

The Kepler Malt Extract contains everything that is of nutritive value in the barley, viz.:—

1st. *Diastase.*
2nd. *Proteids* and peptones.
3rd. *Maltose* (malt sugar).
4th. *Dextrins* (peptogens).
5th. *Phosphates.*

Authoritative Reports.

The Lancet:—"It is the best known and most largely used."

Medical Press and Circular:—"The most palatable and easily digested."

London Medical Record:—"Not only unsurpassed, but unequalled."

Dr. Yandall:—"It has by far the choicest flavour of any I have ever seen."

Medical Times and Gazette:—"It is by far the best we have seen."

Supplied to the Trade in bottles, containing ¾ lb. and 1½ lb., at 22*s.* per dozen and 38*s.* per dozen, subject to the usual discount.

BURROUGHS, WELLCOME & CO., Manufacturing Chemists, Snow Hill Buildings, E.C.

"VASELINE."

NOTICE!! All sizes of our Preparations of Petroleum Jelly ca now be obtained PROMPTLY from any of the Wholesale H uses.

The fancy word "VASELINE" indicates our make of Petroleum Jelly. It is the Registered Tr e MARK of THIS Company and cannot be applied to any other goods without infringing the rights of th Company under the Trade Mark Act.

SEND FOR NEW PRICE LIST.

CHESEBROUGH MANUFACTURING CO. CONSOLIDATED (NEW YORK),
42 HOLBORN VIADUCT, LONDON, E.C.,
Proprietors and SOLE Manufacturers of the "VASELINE" Preparations.

HEADQUARTERS FOR

ANTIPYRIN.

"THE REMEDY FOR SUFFERING AND FOR PAIN."—Professor Germa See.

Fresh supplies of the genuine ANTIPYRIN are constantly arriving, for which we quote s below, subject to our usual discount. May be ordered through the Wholesale Houses.

The Tabloids of Antipyrin afford perhaps the most convenient and agreeable form of administration, as the are easily swallowed with a little water and without disagreeable taste.

Chemists will do a favour to their Medical friends by sending Antipyrin in Tabloid, Crystal, and Powder for and submitting same to them with the therapeutic leaflets which we shall be happy to supply upon request

Prices.—Antipyrin, 3/6 per oz., less the usual discount; special terms for large quantities. Antipyrin Tabloids, 5 g each; in bottles of 25, 28/ per dozen; in bottles of 100, 80/ per dozen; Retail Prices, 3/ and 9/ each.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDO E.C.

DRAPER'S INK (DICHRO C)

THE NEW BLACK INK, different from anything else ever produce

Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Ba , Public Offices, and Railway Companies throughout Ireland.

It writes almost instantly full black.
Does not corrode Steel Pens.
Dries rapidly on the Paper.
Is cleanly to use, and not liable to blot.

Flows easily from the Pen.
Blotting-paper may be applied the moment of writing.

In Jars, 6d., 1s., and 2s. each.

Can be obtained, in London, through Messrs. BARCLAY and SONS, Farringdon Street; W. EDWARDS and SON, 157 Qu Victoria Street, E.C.; F. NEWBERY and SON, Newgate Street; S. MAW, SON, and THOMPSON, Aldersgate Street; HAYD and Co., 10 Warwick Square, Paternoster Row; HOVENDEN and SONS, City Road; AYRTON and SAUNDERS, Duke Street iverpool; GOODALL, BACKHOUSE and Co., Leeds; JNO. HEYWOOD, John Dalton Street, Manchester; JAMES HEMINGTON, 6 r Street, Birmingham; HENRY HODDER, Broad Street, Bristol.

BEWLEY & DRAPER, Limited, DUBLIN.
See "CHEMIST AND DRUGGIST," December 15th, 1874.

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Manufacturers of Britannia Dry Plates.
Albumenised & Ready Sensitised Papers.
Chloride and Bromide Plates.
French Mounts for Photographs.

PHOTO OUTFITS, &c., &c.

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NOW READY, with List of Special Discounts to Chemists and Opticians.

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THE CHEMIST AND DRUGGIST

ESTABLISHED 1859.

RINCIPA OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICE:

RMANBY CHAMBERS, MELBOURNE.

Published every Saturday.

scriptio 10s. per year, payable in advance; dating fro the commencement of any month.

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plied only to persons connected with the Trade

Australa n subscribers the subsidiary journal THE CHEMIST AND DRUGGIST OF AUSTRALASIA is included.

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XPORT RADE.—We intend to send copies of our issue larch 1 to all the known shippers of chemicals, drugs, druggi goods of any character in the United Kingdom. shall as these firms to keep that journal on file and use dvertis ents when filling their indents. Many of them h appr iate the advantage of a complete set of adver- ments ferring to any particular trade, and we have on to ow that previous issues which have been thus ulated ve been much used. We hope manufacturers dealer ill see fit to use that number very generally.

OSTCARD COMPETITIONS, 1888.

No. 2.

R. BL K, chemist and druggist, Dull Town, wishes to mence dvertising in his local paper in March next, and give guinea for the best suggestion for a two-inch ertisem t in the columns of the paper. Specimens in petitio to reach the editor of THE CHEMIST AND UGGIST efore the end of the current month—to be drawn on post ards. Special articles may be advertised, or the ouncer nt may be general in its terms. It seems essary state that Mr. Blank is an imaginary being, and t the a ertisement to be drawn up in his name is not to er to a ally existing proprietary articles. What we nt is to t some clever models of advertising for chemists provinc papers.

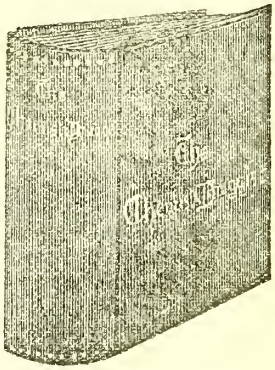
ADVER EMENTS of employers and assistants can be eived b us up to the first post on Friday mornings, and ll be in ted in the current week's issue.

PARLIAMENTARY NEWS.

(*From our Gallery Correspondent.*)

THE PHARMACY ACTS AMENDMENT BILL is down for the second reading in the House of Lords to-night (Friday).

THE EARLY CLOSING BILL stands for second reading in the House of Commons on Wednesday, May 2. As it is first on the list for that day there is some prospect that a division will be taken upon the measure.



THE reading cases which we offer to subscribers are now used by a very large number of chemists, and are found very convenient. They keep together thirteen numbers in very tidy form, always ready for reference. By having two cases in hand the numbers of a complete volume are always available until the time comes for binding. We sell these cases at the office for 1*s.*, or by parcels post 1*s.* 3*d.*, or two for 2*s.* 3*d.* We cannot forward them to any house for enclosure, nor by any of the carriers, as in the latter case we have to pay for booking.

THE CHEMIST AND DRUGGIST OF AUSTRALASIA, published monthly at our Melbourne office, can be supplied to subscribers outside Australasia at 5*s.* per annum, payable in advance, and commencing at any date. Chemists interested in the drug trade and the pharmaceutical affairs of the Australasian Colonies will find a full record of all events affecting their occupation in *The Chemist and Druggist of Australasia.* Single copies can be supplied at 6*d.* each. Application should be made by English or American subscribers to the office at 42 Cannon Street, London.

DIARY FOR NEXT WEEK.

Secretaries of societies are requested to send early information of approaching meetings.

Monday, February 27.

Society of Arts, at 8 P.M. Cantor Lectures. John Mayall, Jun., on "The Modern Microscope."

Tuesday, February 28.

Royal Institution, at 3 P.M. Professor G. J. Romanes on "Before and After Darwin."

Wednesday, February 29.

Society of Arts, at 8 P.M. Discussion on Mr. Swire Smith's paper, "The Technical Education Bill."

Thursday, March 1.

Chemical Society, Burlington House, London, W., at 8 P.M. H. E. Armstrong, on "The Origin of Colours, and the Constitution of Colouring Matter generally."

Linnean Society of London, at 8 P.M. E. J. Baker on "A New Genus of *Cytinaceæ*, from Madagascar." J. F. Cheeseman on "Notes on the Flora and Fauna of the Kermadec Islands."

Chemists' Assistants' Association. Annual dinner at the Holborn Restaurant at 8 P.M. R. W. Giles, Esq., in the chair.

Royal Institution, at 3 P.M. Professor Parry on "Early Secular Choral Music"; with illustrations.

Friday, March 2.

Royal Institution, at 9 P.M. C. Meymott Tidy on "Poisons and Poisoning."

Saturday, March 3.

Royal Institution, at 3 P.M. Lord Rayleigh on "Experimental Optics."

Metropolitan Reports.

BREAK A LOOKING-GLASS and luck will forsake you for seven years. The old proverb had great effect on a servant girl named Racher, aged 18, residing in Hornsey, who broke the mirror in her bedroom, and became so despondent that she resorted to carbolic acid in order to end her troubles. The inquest was held on February 17, when the coroner said the breaking of the glass had upset the girl's mind, and a verdict in accordance with this opinion was brought in by the jury.

ASSISTANTS' DINNER.—The members of the Chemists' Assistants' Association and their friends are to dine together next Thursday evening in the Venetian Salon of the Holborn Restaurant. Eight o'clock is the hour fixed for meeting, and Mr. R. W. Giles is to preside. Hitherto these gatherings have been of a highly enjoyable character, and this one is not likely to be behind its predecessors. We are asked to state that tickets may be had on application to Mr. E. J. Millard, 20 Ivanhoe Road, S.E.

CO-OPERATIVE TRADING.—The report of the directors of the Civil Service Co-operative Society (Limited) states that the purchases in the year ended December 31 had amounted to 404,670*l.*, and the sales to 469,456*l.* The value of the stock at that date was 112,971*l.* The gross profit had amounted to 71,448*l.*, and the net profit (after appropriating 1,605*l.* for fittings and 963*l.* for the depreciation of lease of 27 Haymarket, which would then be entirely written off) had been 13,958*l.* They recommended the maximum dividend of 5 per cent., and out of the balance of 8,958*l.* to grant 250*l.* to the provident fund and to set aside 2,176*l.* to the leasehold redemption fund and 3,000*l.* to the insurance auxiliary fund, leaving 3,532*l.* to be carried forward.

A STARTLING VISITOR.—Last week Mr. J. Savage, chemist, 195 Queen's Road, Dalston, was startled by a loud knocking at his back door. On opening it, a man in a frantic state rushed in, crying, "There is a man after me who wants to kill me." The visitor quickly pulled off his overcoat and hat, which he hung up on a hat-rack, and then ran down the stairs into the back kitchen. Mr. Savage sent for a policeman, who went into the kitchen and saw the man cutting his throat with a table-knife. He at once secured him, and he was conveyed to the German Hospital, where his wound was pronounced to be dangerous It was found that he was a resident in the neighbourhood, that he had been walking in the Richmond Road with a lady, and that, without any apparent reason, he ran from his companion into Queen's Road, rushed through a shop into the garden at the rear of the premises, and scaled the garden walls, thus arriving at Mr. Savage's back door.

THE OPIUM THEFT AT THE DOCKS.—At West Ham Police Court on Friday, February 17, John Regan (45), a labourer, of Canning Town, was charged on remand with stealing a quantity of opium, the property of the London and St. Katharine Docks Company, valued at 75*l.* Mr. C. O. Humphreys prosecuted. The evidence showed that on February 6 the ship *Georgic* arrived in the Royal Albert Docks, bringing a large cargo of valuable goods, among which were twenty-seven cases of opium. The opium, with other goods, was sent to the lock-up on the jetty, and on the morning of February 8 one of the cases was missed and was not found till the next day, when it was discovered hidden away in another part of the warehouse. It was broken open, and several of the tins in which the balls of opium were packed were also broken, goods to the value of 75*l.* having been extracted. On February 9 Detective Sergeant Wilcox, of the Dock Company's police, saw prisoner and another man between K and B jetties, and suspecting the prisoner he asked him what he had about him. Prisoner said he had nothing, but Wilcox felt his waistcoat and found what proved to be a ball of opium. Prisoner when told to go to the station was very violent, and being hustled into an office he was searched, and seven other balls like the missing one were found on him. The prisoner, who now said he picked the balls up, was committed for trial.

THE CHEMIST AND THE MINING COMPANY.—The case of Mr. John Milton Oxley Eminson, of Great Grimsby, pharmaceutical chemist, who, as stated last we, has been p secuted at Bow Street Police Court on a arge of perj alleged to have been made in an affidavit sorn in support an application in the High Court to wind p the North Transvaal Company, was heard again on S urday last. George Lewis, who defended Mr. Emin, subjected prosecutor, Mr. Perryman, the promoter of he company, a severe cross-examination, with the objec of showing the company was, as the affidavit had lleged, a bo affair. It was admitted that the comp y had only sovereign in the bank, but the secretary sa that an engin was to be sent out next month to work t company. promoter said this was the first company had promot and he believed it would result in a profit t he shareholde He was formerly a clerk to a tea merchan He denied suggestion that he had been accused o misappropriat warrants. His offices were in Pump Cou Temple, but declined to give any private address. He ew the firm Morrant, Stewart, & Co., of Queen Victori Street. He acted as their clerk. He denied that had carried business in those names, but admitted t he had sig cheques in the name of Morrant & Co. Mr. Bridge interposed and asked whether the cross-ex ination had gone far enough. Mr. Lewis asked whet the magist thought so. Mr. Bridge said quite, and d nissed the s mons. The complainant elected to be bou over under Vexatious Indictment Act. Mr. Bridge ggested that had better take time to consider the matt. He decli and alleged that gross and scandalous rges had b made against him. He was accordingly b nd over in sum of 100*l.* to prosecute.

Provincial Report

Items of news, and newspapers containin matters of i est to the trade, sent to the Editor, will m oblige.

BIRMINGHAM.

IT is proposed to start classes in this tn on the m facture of coal gas.

BIRMINGHAM MICROSCOPICAL SOCIETY. At a meetin the Biological Section held at the latter rt of last w Mr. R. W. Chase, F.Z.S., was re-elected psident, and J. E. Bagnall, A.L.S., was elected secreta for the en year.

LECTURES ON IRON.—On Saturday eve g a meetin the South Staffordshire Institute of Iron nd Steel W Managers was held in the Mining Mu n, Dudley, Parry presiding. Mr. A. E. Tucker, F.I.C. F.C.S., deli an address on "Some Curiosities of Ir Manufacto Among other things the lecturer referr particularl some experiments of his in connection wh chrome which would before long cease to be a curi ty, and bec of great value for the purpose of resistance

MIDLAND COUNTIES VETERINARY MEDI L ASSOCIAT —On Friday of last week a quarterly mee g of this ciation was held at the Great Western tel, Mr. J. Parker (president) in the chair. Mr. Ma lm. the ne elected honorary secretary, read a paper "The Fe and Management of Draught Horses." He ave analy the various foods consumed by such ho s, and sho which gave warmth, which strength, and w ch were d tible. From these, horses working hard or y, fast or s could be properly treated.

LEEDS.

DINNER.—The travellers and clerks i the employ Messrs. Goodall, Backhouse & Co. held th annual di on Saturday in the Grand Restaurant. Mr V. Powell man presided, and Mr. J. T. Gilling occupi the vice-c After the usual loyal and patriotic toasts t Vice-Chair proposed the "Firm," to which the Chairm responded neat and appropriate speech, in which he mmented the good feeling which exists between em oyers and

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reafter a most enjoyable evening was spent in ntiment, the Chairman, Messrs. F. P. Cooper, tt, French, Wilson, Whittaker, and others luable aid in this department. Mr. James d at the piano.

—A very interesting debate took place at a e Leeds Philosophical Society on Tuesday night, ing the "Artificial Formation of Organic Sub- . Sydney Lupton introduced the subject. Pro- lls, of the Yorkshire College, in the course of speech, said nothing important was to be ex- he researches of the colour chemist, the consti- inal being the only important subject to be With respect to the production of artificial ey were trying to make quinine and certain the fact was that if they made one, they for practical purposes. Already coniine had artificially. After mentioning the accidental iccharin, Mr. Smithells said that the goal of the mist was the most complicated compounds ture, among which could be reckoned starch He anticipated no difficulty about the produc- and even thought that the chemist would yet plasm. Dr. Lewcowitz admitted that coniine d been artificially prepared, but they had not n on polarised light, and that showed that they y different from the natural substances.

LEICESTER.

ICESTE —The Old To . F. Ric large a ards, re ry natu during very g botanica be plan rous gi intere dealt w lahorat the ma was ve is were man, an e Counc rdson; ey; Tr J. Edv hepher

AND LEICESTERSHIRE CHEMISTS' ASSOCIA- nual meeting of this association was held at Hall, Leicester, Thursday, February 16. Mr. dson, J P, F.C.S, presided, and there was a ndance. The honorary secretary, Mr. J. J. the annual report, which was of a very satis- A class for the study of botany had been summer session at which the attendance had l. The committee had secured the formation arden in the Abbey Park, and hoped it would . The Preliminary class had been continued. of specimens, books, &c., had been received. had been well looked after, and any infringe- . The chemistry class had been held in the attached to the Leicester Technical School, gement of Mr. Burford, F.C.S. The balance- satisfactory, showing 11*l.* in hand. Votes of assed to the teachers, the Council, and the he following gentlemen were elected to serve for the ensuing year:—President, Mr. J. G. F. ice-presidents, Messrs. J. Young and G. urer, Mr. W. Thirlby; Honorary Secretary, ds; and Messrs. Lloyd, Clark, Beale, Dudley,

LIVERPOOL.

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IDENT TO A WIDNES CHEMIST.—Mr. Auer, gentleman, employed at the works of the Company as head chemist, was engaged last y 17) experimenting in the laboratory at the chemicals exploded with great force, flying all into his eyes, and burning him in a frightful Keeffe was soon in attendance, and on seeing e injuries ordered Mr. Auer to be taken to Eye and Ear Infirmary, which was at once is not expected to be able to resume his t ten days.

OLD A Mr. S rd, *alia* harged nd ring, waiter he pris nond i se it f y for it ickman accour

JAINTANCE?—At the Police Court this week, Behrend and Alderman Shallcross, William Walter Walters, a young man of good address, th having on September 11 last stolen a lue 10*l.*, the property of John Edward Pick- the Victoria Hotel, Liverpool. It appeared er, who was staying at the hotel, noticed g Pickman was wearing, and agreed to 10*l.*, saying he would keep the ring then, xt day, after he had called at the bank. He was the "Hon. Walter Walters," and that he at the Manchester and District Bank. He had also borrowed money from gentlemen staying at the hotel, and left without paying his bill. A pawnbroker in Dale Street proved having advanced 2*l.* upon the ring. Prisoner was apprehended at Derby, after being liberated on another charge. He was now committed for trial. This seems to be the same Walter Walters who was convicted at Derby in November last (as reported by us on November 26 and December 3) with having fraudulently obtained a situation as chemist's assistant with Mr. Henry Monkhouse, chemist, All Saints', Derby.

AN INDISCREET LETTER.—An inquest was held at Walton, on Saturday, on the body of Percy Christopher Christopher, aged 3 years, son of John Alfred Christopher, a retired coal merchant living at 36 Newton Street, Walton. The inquest arose in consequence of a letter written by Dr. Ireland, who had attended the child, in which he stated that he had reason to suspect that death was due to poisoning by some substance administered to the child before he was consulted. The father of deceased in his evidence said his son was not well on Tuesday last from a fall which he had received, and the following day he gave him one of Brandreth's pills. Dr. Ireland, being afterwards called in, ordered deceased to have poultices applied to his stomach. Deceased died the same night. Dr. Ireland refused to give a certificate. Dr. Ireland, questioned by the coroner, said he knew the child had been given a "Brandreth" pill. The Coroner: Did you know or suspect that anything else had been administered to the deceased? Dr. Ireland: No. That was the only foundation he had for saying in his letter that he had reason to suspect that death was due to poisoning. The symptoms might have been caused by a fall on the head. The jury returned a verdict of "Accidental death," and added: "That, in their opinion, the letter from Dr. Ireland of February 16, 1888, was very indiscreet and quite uncalled for, and that there were no facts within his knowledge to justify him in writing the same." The coroner said he should disallow Dr. Ireland's fee for attending.

MALVERN.

MR. COX DAVIES AGAIN.—We regret to have to report that Mr. Cox Davies, the chemist's assistant whose previous adventures in consequence of his neuralgia have already been chronicled in these pages, appeared again before the magistrates last week. Mr. Davies, whose age was stated to be 38, was charged with vagrancy by lodging in an outhouse. About 2 30 A.M. on Tuesday Police-constable Taylor was on duty in the Cowleigh Road, and found defendant in a stable belonging to the Rev. E. V. Williams. When spoken to defendant said that Mr. Williams had given him permission to sleep in the stable, but this was denied by Mr. Williams. Davies was at one time in the employment of a firm of local chemists, but lost his situation, and failing to obtain another he became destitute, and after wandering about the town for several days he fell into the hands of the police on a charge of having broken into Sydney House, as already reported. At the Quarter Sessions in January, Davies was acquitted on this charge, and he then returned to Malvern. Being a well-educated man, whom misfortune had apparently overtaken through no fault of his own, a good deal of sympathy was ex ended to him. He, however, failed to gain employment, and again took to drinking. Inspector Drury laid before the magistrate some correspondence he had had with the police at Leamington, showing that Davies had twice undergone imprisonment in that town for acts of vagrancy. He was committed to Worcester Prison for seven days with hard labour.

NEWCASTLE.

ARE DOCTORS SCIENTISTS?—Judge Turner had to settle this question on Tuesday. It arose on a question of costs in an action, Mr. Goodjer, of Newcastle, objecting to a charge for "preparing scientific evidence," the evidence being that of two medical men, Drs. D. H. Watson and Hughes. He held that this was professional and not scientific evidence, and therefore was only entitled to the usual professional fee. His Honour, however, held that doctors must also be regarded as scientists, and allowed the item.

SCARBOROUGH.

An Original Chemist's Pamphlet.—Mr. Alfred Jones, chemist, Westborough, Scarborough, has issued a pamphlet entitled, "What are you giving me? or, Medicine on the Eve of the 20th Century." On the left hand is printed a clever essay, commenting in lively and trenchant style on the practices of medical men, chemists, and quacks respectively; and opposite, on all the right-hand pages are announcements of Mr. Jones's many medicinal preparations. After a vigorous abuse of patent medicines generally, it needs some literary skill to say of these products all that the maker would wish to say; but Mr. Jones steers through this difficulty very neatly. His pamphlet is offered at a penny, and, though intended for the public, it offers ideas to brother-chemists which should be useful to them.

Prussic-acid Poisoning.—A sensation was caused here at the beginning of the week by the tragic suicide of a man named William Childerhouse (49), against whom the police had preferred a charge of embezzlement. Childerhouse at one time owned a public-house in Hull, then became a brewer's traveller, a barman, and latterly canvassed in the coal trade. In the last capacity he is said to have appropriated some money, and a warrant was issued against him. He immediately began to try to get prussic acid, and in this he was successful, then took a room at Whittaker's Holborn Restaurant, Newborough, where he locked himself up from Saturday. On Monday night Detective Johnson was admitted to the room, when Childerhouse fell back, staggered to the side of his bed, and died immediately. On a chair in the room was found a bottle which had contained prussic acid.

ST. ALBANS.

Poison-bottles too Dear for Club Patients.—An inquest has been held here on the body of Alice Jane Slough, 17, who died from poisoning. It appeared from the evidence that deceased was a great sufferer from rheumatism, and had got a mixture and a liniment from Dr. Ernest Lipscombe. The liniment was a mixture of aconite and belladonna liniments, and the deceased had taken a dose (a wineglassful) of it in mistake for the mixture, both being in ordinary "white medicine-bottles." Dr. Lipscombe was called as soon as the error was detected, but he failed to avert death. In answer to the jury, the doctor now said that it was very objectionable that invalids of any age should be permitted to use poisonous lotions upon themselves, and the bottles containing such liquids should be under the exclusive control of their attendants. He explained that it would be expensive to doctors if they had to supply to club patients the blue-coloured bottles which private patients usually received poisonous liquids in, because club patients would want new bottles at every visit. A blue bottle would cost about one halfpenny. Some of the jury strongly expressed their opinion that the clubs should supply blue-coloured bottles for liniments, &c., to prevent mistakes among the poor, to whom a highly-coloured bottle would be of more striking warning than a narrow label. The jury returned a verdict of "Death through misadventure."

YORK.

The Yorkshire Glass Bottle Manufacturers' Association held their dinner at the Stafford Arms Hotel, Wakefield, on Monday, Mr. George Kilner, of the firm of Kilner Brothers, of Thornhill and Conisborough, President of the Association, in the chair. Mr. W. Breffit, of Castleford, in proposing "Success to the Glass-bottle Trade of Yorkshire," said that his impression was that the predicted revolution in the trade was not going to come just yet, and personally he did not feel at all afraid of it, and he did not think there was a manufacturer present who was afraid of it. If in future bottles were made by machinery, coupled with human labour, no doubt the effect would be, as it had been in many other cases, that instead of labour being diminished it would ultimately be greatly increased.

Baldness is cured homœopathically by giving calc. carb. 12 and calc. phos. 12 in alternate weeks, and by applying to the bald spots arnicated oil (1 of the drug in 10).

Personalities.

Mr. Spurrin is about to commence business in Tavistock Road, Plymouth.

Mr. Llewelyn Roberts, son of Mr. Peter Roberts, pharmaceutical chemist, St. Asaph, has just taken the M.B. degree of the London University.

At the Greenock Sheriff Court last week, Mr. John Peters, chemist and druggist, Gourock, was fined 5*s.* and expenses for refusing to allow his child to be vaccinated.

Mr. W. T. Harwood, late of Somerton, and formerly of Middle Street and Hendford, Yeovil, has purchased the Homœopathic Pharmacy at 43 North Street, Taunton, until recently carried on by Mr. W. C. Field.

Mr. J. Hertz, of the firm of Hertz & Collinwood, agents for Jensen's cod-liver oil, is the patentee of a combined envelope and letter-paper, which, with a penny stamp, it is proposed to sell for a halfpenny, making advertisers pay the difference and enough beyond to make up a substantial profit for the shareholders in the company which is being formed to work the idea. The patent consists of a complicated sheet of paper containing a number of advertisements, and offering besides three blank pages of a sheet of letter-paper. When the whole is folded the penny embossed stamp which appears fits into a hole in the envelope portion.

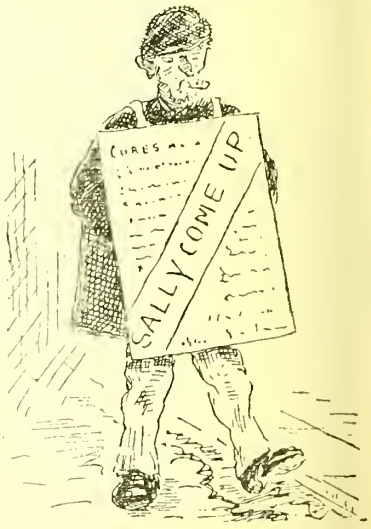
NEW COMPANIES.

Institute of Medical Electricity (Limited).—Capital 20,000*l.*, in 1*l.* shares.

Gard & Co. (Limited).—Capital 10,000*l.*, in 1*l.* shares. Object—To acquire the business of manufacturing seal leaosing chemical plate-cloths, &c., now carried on at Dunstable by Mr. W. Gard.

Gold Company (Limited).—Capital 2,000*l.*, in 1*l.* shares. Object—To enter into an arrangement with Mr. John Butcher, of Nottingham, or his agent, Mr. J. H. Wilkinson, of Doncaster, with reference to Mr. Butcher's "recent scientific discovery for the manufacture of gold and silver by chemical means."

THE PROGRESS OF PHARMACY.



A Chemist's Advertisement of an expectorant medicine, to be seen daily in the streets of a large Northern town.

CHEMICAL SOCIETY.

T a recent meeting of this society, Mr. W. Crookes, F.R.S., president, in the Chair, the following, amongst other pers, were read:—

The Supposed Identity of Rutin and Quercitrin.

By E. Schunck, Ph.D., F.R.S.

Rutin, a crystalline yellow colouring matter contained in e leaves of garden rue (*Ruta graveolens*), was discovered Weiss, and subsequently examined by Bornträger; by chleder and Hlasiwetz, who obtained it from capers, the wer buds of *Capparis spinosa*; by Stein, who found it in inese yellow berries, the flower buds of *Sophora japonica*; d by the author himself, who extracted it from the leaves *Polygonum fagopyrum*, the common buck-wheat. By st of these chemists it was held to be a distinct substance. e experiments of Hlasiwetz, however, seemed to prove that was identical with quercitrin, and this view appears to ve been generally adopted. Quercitrin having within the t few years been examined by Liebermann and others, d its true composition having been ascertained, while rutin s not recently been made the subject of investigation. e quercitrin employed by the author was obtained from ercitron bark, and was found to have the properties d composition assigned to it by Liebermann and Hamger. The rutin was derived from buck-wheat leaves. A parative examination of the two substances led to the clusion that they are indeed extremely similar, but that y differ essentially as regards some of their properties; y also differ in composition. Rutin yields with acids the e products of decomposition as quercitrin, viz., quercetin d isodulcite, but not in the same relative proportion; it es less quercetin and more isodulcite. The analyses of rutin ee with the formula $C_{42}H_{50}O_{25}$, that of quercitrin being $H_{38}O_{20}$. The process of decomposition with acids would represented by the equation—

$$C_{42}O_{50}H_{25} + 4H_2O = C_{24}H_{16}O_{11} + 3C_6H_{14}O_6.$$

Hence it would appear that rutin is derived from 1 mol. of rcetin and 3 mols. of isodulcite, and quercitrin from only 2 ols. of the latter and 1 of the former.

The Composition of Bird-lime.

y E. Divers, M.D, F.R.S., and M. Kawakita, M.E., F.C.S.

ird-lime from *Ilex aquifolium* was investigated a few rs ago by J. Personne, who found in it, besides vegetable *dris* and water, calcium oxalate, caoutchouc, and ethe- salts of a solid, crystalline alcohol, $C_{25}H_{44}O$, m. p. 1°, with undetermined fatty acids. The authors had ly examined Japanese bird-lime before Personne pubied his results, and were induced to continue their work rwards by finding that their observations, to some extent, ered from and went beyond his—indeed, their work renders robable that Japanese bird-lime, prepared as it is, not n *I. aquifolium*, but from *I. integra*, is different in some ects in composition from European bird-lime.

hey find the fatty acids of the ethereal salts to be palmitic , and, in very small quantity, a semi-solid acid, the ium salt of which is soluble in ether and in alcohol. y have obtained two very similar alcohols by hydrolysis, differing only slightly from Personne's ilicic alcohol, ch they have named ilicylic alcohol, and have found from ely concordant analyses to have the composition $C_{22}H_{38}O$; another, which they have named mochylic alcohol, from *mochi*, the Japanese word for (bird-) lime, or glutinous ter, and which agrees closely in composition with the ula $C_{26}H_{46}O$ The melting point of this alcohol is C., and that of ilicylic alcohol, 172°. The two alcohols separated from each other and from a resinoid body, $H_{44}O$, by a tedious process of fractional solution with t of varying strengths. The resinoid body is readily ble in spirit as weak as 80 per cent., mochylic alcohol in of 95 per cent. or stronger, and ilicylic alcohol in of 85 to 90 per cent. or stronger. The resinoid body p. 110°) volatilises above 360°, apparently but little ged, ilicylic and mochylic alcohols, without change in a um, at about their respective melting points. Heated with palmitic acid, the two alcohols are converted into compounds just like purified bird-lime. Caoutchouc is also present in Japanese bird-lime to the extent of about 6 per cent.; but only minute quantities of oxalates. By destructive distillation, bird-lime yields much palmitic acid and a thick, oily hydrocarbon, $C_{26}H_{44}$, besides fluorescent and more carbonaceous hydrocarbons, very little gas, and very little carbonised residue. The authors consider bird-lime to be closely allied to the waxes in chemical constitution.

SOCIETY OF CHEMICAL INDUSTRY.

A MEETING of the London section was held on Monday at 8 P.M., Mr. Thomas Tyrer, F.C.S., F.I.C., in the chair. The first paper read was on

Oil of Camphor and Oil of Sunflower.

By C. T. Kingzett, F.C.S., F.I.C.

This was the sixth of a series of papers on the oxidation of essential oils, and it referred more particularly to the atmospheric oxidation of turpentine, camphor oil, and oil of sunflower. As regards camphor oil, Yoshida a few years ago stated as the result of an examination of a five years' old sample that the oil consists of terebinthene, citrene, camphor, and a body which he called camphorogenol. The last-named body is the most interesting, for Yoshida gave it as his opinion that from it camphor is formed, and that it itself is a product of the oxidation and hydration of terpenes. Mr. Kingzett could not, however, regard Yoshida's experiments as conclusive, and his observations on the oxidation of the oil in presence of water showed that peroxide of hydrogen was freely produced. For instance, 120 gallons of the oil during fifty-two hours' oxidation yielded 1,000 grammes of the peroxide; and on another occasion, 320 gallons yielded 3,379 grammes, calculated as pure H_2O_2, and more was afterwards obtained. After quoting figures showing the production of oxidised oil from camphor oil, the author proceeded to show that the formation of peroxide of hydrogen follows the production of camphoric peroxide. It is possible that this may be identical with camphorogenol, in which case peroxide of hydrogen would be formed thus:—

$$\underset{\text{Camphorogenol}}{C_{10}H_{18}O_2} + H_2O = H_2O_2 + \underset{\text{Borneol}}{C_{10}H_{18}O}.$$

This, however, is hypothetical, and it is more likely that the peroxide is formed as the result of the reaction of water upon a more highly oxidised body, such as $C_{10}H_{18}O_4$, which yields along with peroxide a bitter substance—$C_{10}H_{18}O_3$—actually found by the author in previous experiments, and in these. It is possible that this substance has the formula $C_{10}H_{16}O_2$, H_2O, and the author calls it "soluble camphor." A sample of it was exhibited. It is a brown tenacious substance, with a peculiar odour. A sample of oxidised camphor oil was experimentally shown by the iodine test to contain hydrogen peroxide in apparently as great abundance as oxidised turpentine. As regards the soluble camphor, the author thought there was a relationship between it and the thymol-like body, which is obtained as the result of the oxidation of turpentine. He had been unable to obtain ordinary camphor from this body. In concluding Mr. Kingzett called attention to the importance of the subject in connection with natural sanitation. He has in "Nature's Hygiene" given an account of the immense influences on climate which are exercised by pine and eucalyptus forests wherever they exist. In the case of Australia, Mr. Bosisto has calculated that in New South Wales and South Australia there may be held no less than 968,887,440,000 gallons of eucalyptus oil at one and the same moment in the leaves of trees more or less massed together and occupying a belt of country over which the hot winds blow. Accepting this estimate, Mr. Kingzett calculates that this quantity of oil can give rise by its oxidation to the production of 92,785,023 tons of hydrogen peroxide, and 507,587,945 tons of soluble camphor ($C_{10}H_{18}O_3$). Considering their powerful oxidising and antiseptic properties, it is easy to understand how large an influence for good they must exercise upon the sanitary condition of the country in which they are generated. Camphor oil is equally effective with eucalyptus and pine oils, and it follows that within the limits of

the existence of camphor forests they may be regarded as constituting a natural sanitary agent of the same high order as forests of pine and eucalyptus trees. As regards sunflower oil, Mr. Kingzett said that he had not obtained any peroxide of hydrogen from it, but he did not know whether the sample was produced from the seeds of the sunflower or from the leaves.

In the discussion on this paper Dr. C. R. A. Wright said that some years ago he had examined camphor oil and found that it was of very variable composition. From one sample he had obtained a hydrated turpene, $C_{10}H_{18}O$, and if that still existed in camphor oil it would, on the absorption of oxygen, be changed to camphor. He had recognised a similar body in dementholised Japanese peppermint oil. Mr. Thomas Christy said that he had resided in China, and had seen camphor collected. As first obtained it was in the form of an oil, which, however, did not keep liquid, so the natives added other oil to it. But they had stopped that since they learnt how, by blowing air into the oil, they could make camphor from it. Mr. Kingzett, in replying to these remarks, said that if people blew air into camphor oil in China they ought to pay him a royalty, for that was his process. (Laughter.)

The next paper was on

A New Series of Cotton-colouring Matters.

Instead of reading the paper, the author, Mr. Arthur G. Green, gave a demonstration in dyeing. The paper was of little pharmaceutical interest, but a brief description of the discovery may be given. Cotton dye-stuffs are of two classes: those which combine with the fibre, and those which may be regarded as pigments or lakes. To the former belong such substances as methylene blue, annatto, and the diamido bases; and to the latter alizarine, and the old mineral colours. The combination of the two classes was aimed at by the author, and this he obtained in *Primuline*, an amido-sulphonic acid, which is a yellow powder very soluble in water. It imparts a primrose shade to cotton, and fabric thus dyed is capable, by merely immersing in developers, of changing into all shades from orange to black according to the nature of the developer. This property depends upon the deazotisation of the primuline, and combination with phenols and amines, whereby azo-colours are produced. The author's demonstration, which took up the better part of an hour, proved the extraordinary simplicity and utility of his invention. The paper was also a good proof of the value which the study of organic chemistry is in the arts, for Mr. Green's dyeing experiments were nothing more than chemical experiments, complex, no doubt, and involving an intimate knowledge of the most intricate part of organic chemistry. But to produce a new series of dyes is something worth working for, and Mr. Green, who is quite a young man, has that satisfaction.

After a few comments by the members on this demonstration, Dr. E. R. Moritz read a

Note on Kjeldahl's Method for the Determination of Nitrogen.

This was by himself and Professor Meldola, and it simply pointed out that, as many commercial samples of sulphuric acid contain nitrogen in the form of ammonium sulphate, such acid should not be used in the determination. The authors recommended the acid to be purified by the addition of 0·5 gram of potassium nitrite to each 100 c c. of acid, and heat for two or three hours, whereby the following reaction takes place:—

$$NH_3 + NO, OH = N_2 + 2\,H_2O.$$

The ammonia is thus expelled. The results of experiments with purified acid showed that it was the better for it; but in the brief discussion which followed Mr. Ruckel said that there was no difficulty whatever in getting sulphuric acid free from nitrogen, and he felt disappointed with the note.

In the absence of the author, the chairman read the best parts of a paper on

The Bromine Absorption of Mineral Oils.

By James B. M'Arthur.

The bromine process for the valuation of oils, resins, &c., has been worked out by Mills and Allen, the method employed, as described by Allen, consisting in adding an excess of bromine dissolved in carbon bisulphide to a known quantity of the oil also dissolved in carbon bisulphide. After standing some time potassium iodide is ad d to the mixture, and the amount of iodine liberated i estimated with sodium thiosulphate, whereby the amount bromine absorbed is indirectly obtained. In applying is test to mineral oils, the author found that several rul not laid down by Allen have to be adhered to. Allen i ists upon the absence of light and moisture, the necessit of which the author confirmed, also adding that it is higl essential to use double the amount of bromine to what i absorbed, the quantity being determined in a blank exper ent. Experimental results were given proving the correctn s of these conclusions. It was particularly observable tha although olive oil absorbs but a small percentage more bromine after standing for several hours, shale oil absor d almost double in an hour. For example:—Olive oil, fifte minutes' contact, 47 per cent. bromine absorbed; two hou , 48 6 per cent. Shale oil, half a minute's contact, 11 3 pe ent., and one hour, 19·2 per cent. Dilution also seriously duces the absorption factor in the case of shale oil, and that olive oil to a smaller extent. Excess of bromine, on the her hand, increases the absorption power from 12 per cen with 1 2 volume to 16 1 per cent. with 3 4 volumes in t case of shale oil, and from 44·9 per cent. (1 2 volume) 55·5 per cent. (4 volumes) in the case of olive oil. The ombined effect of long time, little dilution, and large xcess of bromine on olive oil is to increase the percenta, to 71·5, and to 102·1 per cent. when these conditions e carried exceedingly far. The author was of opinion at with mineral oils the amount of bromine absorbed shou indicato the quantity of olefins present, as paraffins do no nder the conditions named absorb bromine. The paper ncluded with a long list of factors for the bromine absorpt .

The following are a few of these:—

—	Sp. gr.	omine orption
Shale lubricating oil, pale	0·892	27
German vaseline oil, white	0·892	008
American petroleum jelly	0·890	533
Shale burning oil	0·804	49
Refined shale naphtha	0·734	22
Refined rape oil	0·914	02
Cotton-seed oil	0·922	02
Olive oil	0·917	70
Castor oil	0·961	00
Raw linseed oil	0·932	50
Refined paraffin wax	M.P. 125° F.	73

The chairman quoted figures from a paper of M Allen's showing the differences which may be expected in sults if the precaution which Mr. McArthur now pointed t is not observed. There was no discussion on this paper, d, after the chairman intimated that at the next meeting M Chance would describe his process for recovering sulp r from alkali waste by means of lime-kiln gases, the eeting adjourned.

Trade Notes.

Messrs. Seabury & Johnson, the plaster manu turers, are about, we understand, to establish a branch of t ir firm at Montreal in Canada.

Messrs. Schröder & Plate announce that tl have established themselves in Ottensen, near Hamburg, whole-sale drug and chemical merchants.

Messrs. Slack & Brownlow, filter manufact rs, of Manchester, have just issued a revised catalogue for 88, in which their patterns and improvements for this se n are fully detailed.

Disinfectant manufacturers should take note f the advertisement appearing in the supplement this weel alling for tenders for the Fulham vestry, to be sent i before March 7.

Messrs. Southall Brothers & Barclay anno e the arrival of a first supply of A1 cod-liver oil from their ctory at Balstad, Norway. They report that the quality is best ever known, and that the livers yield well this yea They offer by advertisement in this issue to pay carriage on rtain quantities.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

RU 'RIESTLEY is the name given to a new street soon to be op ed in the Buttes Chaumont quarter. It is thus design ed after the celebrated English chemist.

PHI CIAN SENT TO PRISON FOR ILLEGAL PRACTICE OF PHAR CY.—The Cour de Cassation, on December 30, 1887, reject the appeal brought by Dr. Guillemin of Auneau (Eure-Loir), who had been sentenced to a fine and three days' i risonment by the Chartres court, and had seen the judgm t confirmed by the Paris Court of Appeals, before comin o the court of last resort. The severity of the senten —imprisonment is seldom imposed in such cases—was ov g to the fact that the doctor had been once before convic t of the same offence. The complainant was a pharmacist the same locality.

A HONEST ASSISTANT.—Louis Nesme, an assistant employ by M. Richard, a pharmacist at Grenoble, has been lodged n gaol, charged with thefts amounting to about 6,000f. A safe and drawers were recently broken open at M. Ric rd's, and at his brother's, who keeps a wholesale drug h e near by. Several watches, a diamond ring, and a sum of oney were taken by the thief, then unknown, when the oth day Nesme was caught stealthily slipping out of M. Richar apartments. The young man confessed he was the author the burglaries already discovered, and admitted besides e had been in the habit, for two years past, of appropr ting about 10f. a day from the cash till; 24 years is the a of the culprit.

INAU RAL ESSAYS.—Pharmaceutical candidates for gradua n are no longer obliged to present original theses. They a allowed to write instead an essay, called in French *synthès* on some appropriate subject of their own choosing. In fact a joke is current that some young men merely reprint d essays, presented so long since as to be forgotten, and co nt themselves with slightly changing the title and first pa graphs. However it may be, only six theses in all were pr nted last year at the Paris College of Pharmacy. The Mo pellier College had 3 theses and 34 syntheses, and astly Nancy 1 thesis, with a number of syntheses not ascertai d.

MAGNESIUM CHLORIDE TO "CHEAPEN" GLYCERINE.—M. J. R ol, a pharmacist and analytical chemist, calls attention the fraudulent addition of chloride of magnesium o glyce e, which seems to be now practised on a large scale in me parts of France. Once suspected the fraud is easily d cted, first by the taste alone, and secondly by the usual te s for magnesium salts. The specimens examined contain 44 per cent. of glycerine, and 56 of a magnesium chloride olution of appropriate density. It must be admitted t adulterant is here selected with intelligence, but he frau is not a new one, as it has already been noticed in America

ANNA TE PHARMACY.—The library of the Paris College has ad to its collections a short essay on "Annamite Pharma" published by G. Dumoutier, an interpreter in Tonkin. he writer, who is not only conversant with the languages o he extreme Orient, but also with European tongues, ncludin English, appears to be quite familiar with botany and mat a medica. His work consists of a catalogue of some 30 drugs and chemicals, whose names are given in Annami and Chinese, and in Latin and French when practicable, gether with a brief description of the medical properti of each substance. M. Dumoutier's essay cannot be said interest the general reader, but it probably will prove m useful to the specialist, as it contains information to be ha nowhere else.

ARSEN AL MINERAL SPRING.—While boring an artesian well for lustrial purposes at Bègles, near Bordeaux, a flowing vein as struck of 74° F. Owing to its slightly sulphurous nell the water was used for bathing by patients troubled ith skin diseases But the cures being more numerou nd striking than could be expected from so small a propor n of sulphur, a thorough analysis was made, and the wate roved to contain arsenic. Such at least is the substance of e report read last month by Prof. P. Carles before the Bordeaux Pharmaceutical Society. A project is now on foot to so alter the well conduits as to get exclusively the arsenic-bearing veins, to abandon the factory plant, and to erect in its place a bathing establishment. And now Bordeaux enjoys the prospect of having a watering place at its door, for Bègles is less than a mile from that city.

ATTENDANCE AT THE PARIS COLLEGE OF PHARMACY.—According to the official data just completed for the session ending in November, 1887, the attendance remained about the same as formerly, and may be detailed as follows:—Total number of students, 1,704, out of whom 641 were serving time in pharmacies, 593 attending the lectures, and 470 undergoing examinations. The candidates for the 1st class degree were 809, and for the 2nd, 895. There was no female student. There were 23 foreigners, consisting of 6 Russians, 5 Turks, 2 Greeks, 2 Roumanians, 2 Serbians, 2 Haytians, 1 Mexican, 1 Chilian, 1 Mauritian, 1 Swiss, and 1 Spanish West-Indian. In all 2,248 inscriptions were taken, and 1,425 examinations undergone, which 1,055 passed successfully, while 370 failed. The total number of diplomas conferred was 197, namely, 104 to pharmacists of the first class, 34 to pharmacists of the second class, and 59 to herbalists.

GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

THE PHARMACOPŒIA COMMISSION.—As you doubtless know, Germany has now a permanent Pharmacopœia commission appointed by the Government, and it is proposed that the first meeting thereof shall be convened in April.

CHANGE IN THE PATENT OFFICE.—It is rumoured that Dr. von Bojanowski will be elected to the post of president of the "Patentanet." This would give general satisfaction, as the doctor is known to have more interest in commerce than is found in most Government offices in Germany.

THE ANNUAL CENSUS OF PROFESSORS in Germany shows that this year the University teachers total up to 1,523, who are placed as follows:—Berlin, 292; Leipzig, 186; Munich, 170; Breslau, 134; Bonn, 122; Gottingen, 121; Halle, 114; Heidelberg, 106; Strassburg, 105; Konigsberg, 98; Jena, 92; Freiburg, 88; Tubingen, 87; Marburg, 84; Kiel, 84; Greifswald, 80; Wurzburg, 66; Erlangen, 61; Giessen, 59; Munster, 42; Rostock, 39. In Austria-Hungary the number of teachers is 835, and in Switzerland 452.

HYGIENIC EXHIBITION AT HAMBURG.—Speaking of exhibitions, I would call your attention to a military one to be held in Hamburg, a special part of which is to be devoted to hygiene. That such a subject is not unworthy of attention you may readily understand when it is seen that during a single year there are in Germany 60,000 soldiers under medical treatment, and 40,000 who are unfit for military service, all in consequence of some kind of disease of the foot, arising mostly from unskilled and unscientific work in the boot-making department.

COMPENSATION FOR ANCIENT RIGHTS.—The arrangement which has been finally decided upon by the Brunswick Government with regard to the granting of licences for chemists' shops is interesting. This is an illustration of the sufficiently obvious fact that the conditions of the various parts of an empire are not to be readily provided for and embraced in a single law. The town of Brunswick has, with a population of 88,000, besides extensive suburbs, only four pharmacies, and an increase in this number was rendered additionally difficult by the inclusion with the old licences of a right to demand the solatium of 66,900m. (3,345*l.*) each from any new-comer. Now, however, application has been made to the Government for a grant of the requisite 13,380*l.* to obviate these unsatisfactory conditions, and it is expected that the newly-licensed chemists will have to find among them a quarter of the whole sum, payable in integral parts during twenty years.

THE HAYA POISON.—At a meeting of the Berlin Medical Society, held on Feb. 8, considerable excitement was aroused by remarks on this "new anæsthetic" by Professor Liebreich, who criticised at some length the "discovery" by his former

pupil, Dr. Lewin, of the anæsthetic properties of erythrophlœine, and warned medical men to be careful in resorting to that body, which, he declared, could not be in any way compared with cocaine. The professor, in the course of his speech, stated that he believed the Haya poison to be in no way dependent for its properties upon a vegetable product like erythrophlœine, but that it was derived from the animal kingdom. In confirmation of this he adduced the facts that in Egypt and India there is a snake known by the name of "Hayae," and in West Africa also the name "Haya" is given to a species of serpent. He thought it more likely that the more powerful action of Haya was due to a snake poison than to a vegetable principle. With regard to the fragment "half the size of a pin's head" which Lewin found in the Haya poison, and forthwith recognised as the epidermis of erythrophlœum bark (a wonderful acuteness of pharmacognostic skill), Professor Liebreich suggested that such a piece of foreign substance might readily enough have found its way into the Haya poison "accidentally during the transport" of the drug. I will not occupy space with details of the professor's experiments with erythrophlœine on human subjects, as they were all remarkable only for the negative results obtained. Some amount of anæsthesia was produced over a region about the size of a threepenny piece, but this could also be induced by the subcutaneous injection of almost anything, such as aconitine, antipyrin, ferric chloride, &c. Professor Liebreich also referred to the concordant results related by English observers, such as Mr. Tweedy. Dr. Lewin declared that "the statements of the English medical men are unexact and unreliable." These results so far justify the warning which I threw out in my letter of a month ago.

LIPANIN.—Researches, both chemical and physiological, are still being continually conducted with the view of clearing up the obscurity as to the special therapeutic properties of cod-liver oil, and determining the most advantageous manner of combining it for administration. Recently attention has been directed to the discovery of methods of concentrating cod-liver oil, and one of the results is the product called "morrhuol." This was first prepared by a French chemist by extracting the brown varieties of the oil with 90 per cent. alcohol. It consists of an acrid bitter substance, with a slight smell, and crystallising at normal temperatures. The substance—which has a very powerful taste, and hence can only be given in capsules—is claimed to be about five times stronger than the oil in its natural state. A new research of Professor T. von Mering has just been published in Liebreich's *Therapeut. Monatsch.* According to his results the value of cod-liver oil is dependent upon the amount of free fatty acids which are present. This theory was suggested some time ago by Buckheim. The dark oils contain between 2 54 and 5 07 per cent of these free acids, but the paler varieties only between 0 18 and 0 71 per cent. It is now an explanation generally accepted by pharmacologists that the therapeutical value of the oil is due to the uncombined fatty acids, which facilitate its absorption. The dark oils are the most active, but still the pale oils being more palatable are extensively patronised. It occurred to Mering that by a combination of free oleic acid with an oil possessing a more pleasant taste than cod-liver, an agent as efficient and more agreeable might be prepared. After an extended series of experiments, Professor Mering has succeeded in devising a standard preparation which is medicinally equal to the best qualities of dark cod-liver oil, and has no disagreeable flavour. It consists of an olive oil containing 6 per cent. of oleic acid, set free by the partial saponification thereof. Such a preparation can be readily emulsified and absorbed, and has been commercially manufactured under the name of "Lipanin" (from *lipainein*—to feed, fatten). It passes through the stomach unchanged, but as soon as it enters the intestinal tract the oleic acid produces with the biliary alkalies and the pancreatic secretion a perfect emulsion, in a state most favourable for absorption. Professor von Mering has used lipanin in forty cases, of which about thirty were children. All patients willingly took the remedy, and it did not produce any unpleasant after-effects, such as nausea, vomiting, diarrhœa, &c. The dose given varied between one and four teaspoonfuls and two and six tablespoonfuls daily. The remedy was also very readily digested, even during the warm season, when very frequently cod-liver oil cannot be tolerated. Professor Kohts has also tried the preparation in a number of cases, with the happiest results.

Legal Reports.

AËRATED-WATER MANUFACTURERS' RESPONSIBILITIES.

IN the Court of Appeal on February 16 the case of rocker *v.* Banks was heard by the Master of the Rolls (Lor Esher) and Lords Justices Fry and Lopes.

The plaintiff, a girl of 17, had been for some tim in the employment of the defendant, who was a soda-wat manufacturer. She was an expert hand, and was enga l at a machine for filling soda-water bottles. On July 19, 16, she was injured by the bursting of one of these bottl She brought this action, which was tried before Mr. Justi Grove and a special jury, and obtained a verdict for 50*l.* nages. A Divisional Court, consisting of Mr. Justice Step n and Mr. Justice Charles, refused a new trial, and the dendant appealed.

Mr. Tatlock, for the appellant, said that the girl s perfectly aware of the danger which she ran. A mask s provided for her protection, which she had not put c She had admitted that she knew large numbers of bo s did burst, and that she had sometimes worn the mas The foreman and some of the work girls had given evide that they had recommended her to wear the mask.

The machine and the mask—an ordinary fencing-ask—were brought into court and exhibited to their lordsh .

The court, without calling on Mr. Percy Gye r the respondent, dismissed the appeal.

The Master of the Rolls said that the question was ether the jury were justified in their finding. It was cl that during the process there was danger of the bottles b ting. There was on the machine an automatic guard dur the period of filling and corking the bottles; but when it came necessary to take the bottle from the machine tha uard dropped, and the operator was unprotected. The f that the defendant provided masks for all at this time was rong evidence that he knew of the danger which then sted. Having regard to the tender age of the person employ, the jury were justfied in thinking that it was not suffici for the defendant to provide the masks, but that it was h duty also to point out to such young people the existence the danger, and to insist on their wearing the masks. Si he had failed to do this, the jury might well say that had been guilty of negligence. Then, was the plaintiff g y of contributory negligence in not putting on the mask She had sworn that she did not know of the danger, or it it was necessary to wear the mask at that particular peri and therefore the jury were not bound to say that sl was negligent. It was not negligence for a girl of her e to omit to put on the mask if she did not know that s was bound to do so at that period of the operation.

Lord Justice Fry and Lord Justice Lopes delivered dgment to the same effect.

AËRATED WATERS AND THE MERCHANDISE MA ACT, 1887.

AT the Clerkenwell Police Court on February 17, rge Brooks Booth, mineral-water maker, of Bush Road, Dep rd, was summoned by George Surtell, on behalf of the M eral Water Exchange and Trade Potection Society, for hav on January 25, at Penton Street, Clerkenwell, unlawfull old two bottles of lemonade on which the trade-mark of rge Banks was falsely applied, and also with having sold on which the name of George Bate was also falsely applie on-trary to the Merchandise Marks Act, 1887, sections 2 and The case was not contested, and the defendant having exp sed his regret that he had sold lemonade in bottles bearir he label of another manufacturer, it was stated that it w not desired to press the case, but rather to obtain a decisio at the Act applied to such cases. It was stated that i had been a common practice to use indiscriminately bottles ar-ing the labels of other members of the trade, but tha ow it was determined to stop it. Mr. Barstow though he Merchandise Marks Act a very useful piece of legisl n, and he ordered the defendant to pay a fine of 40*s.* and s.

HOP BITTERS.—We understand that a Chancery sui as been commenced by the Hop Bitters Company agains r.

Ha nerton, chemist, Colchester, in respect of the sale of son Hop Tonic Bitters.

A Slander Case.—Mason & Co. v. Smith.

I the Queen's Bench Division of the High Court of Jus e, on Wednesday, the case of Mason & Co. (Limited) v. S ith was tried before Mr. Justice Manisty, sitting with a con on jury. The plaintiffs brought the action and claimed dan ges for slander. The defendant denied that he had giv utterance to the words imputed to him.

M Bigham, Q C., and Mr. Hamilton appeared for the pla iffs, whilst the defendant was represented by Mr. Cr p, Q C, and Mr. Archibald.

M Hamilton, in his opening statement, explained that the aintiffs, Messrs. George Mason & Co. (Limited), were ma facturers of an essence of meat of very good quality; and he defendant, Mr. Charles A. Smith, was a chemist, car ng on business at Ventnor, in the Isle of Wight. The pla iffs supplied the defendant with a small quantity of the preparation to the value of 30*s.*; and in due course the traveller, Mr. Bailey, called upon Mr. Smith, and app d for payment of the account. That was in the month of gust of last year; and Mr. Bailey found not only that Mr. mith was unwilling to pay for the goods, but that he was isposed to resist payment by uttering a calumnious cha e, the cause of the present proceedings. The words con ained of ran thus: "Mr. Mason (meaning the plaintiff con ny's managing director) sold me goods by misrepresentati , and they (referring to the company) are swindlers, and e whole affair is a swindle." Mr. Bailey reported the affa to his principals, who wrote to Mr. Smith demanding an ology, failing which they warned him that they would plac the matter in the hands of their solicitors. To that com unication the defendant did not return any answer, nor d he offered any explanation of his conduct whatever, alth gh the 30*s.* had been paid for the essence. Before the brie were delivered to counsel, the plaintiffs' solicitors wro to the defendant's solicitors, again asking for an apo y. To that a reply was received from the solicitors, say ; that they had received a telegram from their client inst cting them that he would require all his costs incurred if Mssrs. Mason desired to settle. It would, therefore, be seen hat the defendant had adopted a persistent attitude thro hout.

M Charles William Bailey (Messrs. Mason's traveller) was call . He stated that he called upon defendant with his stat ent of account, and asked him for the money. Mr. Smi said that the goods had been sold to him by the misrep entation of Mr. Mason; that the firm were swindlers, and e whole affair was a swindle. Witness replied that it was othing of the kind; he knew them to be respectable and raightforward people, and he should acquaint them with what the defendant had stated.

C ss-examined by Mr. Crump: When did you tell your prin pals?—I wrote them the same day.

D you make a note of the conversation?—Yes, on the sam day, outside the shop, in my pocket-book.

W en Mr. Smith said that Mr. Mason had obtained the ord by misrepresentation, did you ask him what it was?—No, knew what it was; I had called upon him before. The defe lant had stated that Mr. Mason had called upon him, sug ting that he had seen the medical men in Ventnor, and at they had agreed to recommend our essence, and that e (Mr. Smith) had not sold any, and consequently that Mr. ason had not called upon them.

A there was some question as to the superiority of your esse e over Brand's?—I don't know what that has got to do with t; it is superior to Brand's. (Laughter).

A that is what you have come to prove, is it not?—No.

M Smith told you that he had not sold any of your esse e?—Yes.

Y would have been surprised, I suppose, if the doctors had reed to recommend it, that none had been sold?

M Hamilton pointed out that justification had not been plea d.

M Crump: I am only getting the conversation.

C ss-examination continued: I put it to you on your oat "misrepresentation" was the only word used in dispar ment of your firm?—Certainly not.

M George Mason was the next witness.

Cross-examined by Mr. Crump: Did you suggest to anyone that your company had been injured by this suggested slander?—No, I cannot say that I have.

You don't suggest any injury at all?—Oh, yes; I should be very sorry to say that we had not been injured most seriously.

You know that this statement was made in the shop in the presence only of your traveller and a boy six years old?—I know that.

And if you had not chosen to bring this action no one else would have known anything about it?—We have entirely lost our trade in Ventnor. We have not had a single order from Ventnor since August last. The defendant may have repeated his statement to our traveller to other people.

Did you tell Mr. Smith when you called upon him that the doctors of Ventnor had agreed to recommend your essence?—I did.

Can you account for not a single packet being sold?—No, I cannot.

Mr. Nichols, another chemist, did not sell any either, did he?—Well, he is in a very small way of business.

At the conclusion of the plaintiffs' case,

The defendant was called. He said that he remembered Mr. Mason calling upon him in the month of April, 1887. He had previously heard of Messrs. Mason's essence. Mr. Mason spoke to him about giving him an order. He told him that the medical men in Ventnor were going to discontinue the use of Brand's and order his. He gave Mr. Mason an order. The first time Mr. Bailey called for his account he simply told him that it was not due, and he should not pay it. He added that Mr. Mason had not completed his part of the bargain, in that he had not sent some show tablets. The tablets were sent. Upon Mr. Bailey's second visit he told him that he could not pay him because he had omitted to bring the keys of the cash box with him that morning. He also remarked that Mr. Mason had obtained the order by misrepresentation, as he had said that he had called upon all the doctors in the place, and that they were going to order his essence. He never used the words "swindle" or "swindler."

Cross-examined by Mr. Hamilton: I was not particularly annoyed at not having sold the goods. It was simply a failure. I did not pay until the writ was issued because I expected Mr. Bailey to call again, when I should have paid.

Mr. Crump addressed the jury, urging that in the circumstances a little irritation and a few high words were excusable on Mr. Smith's part.

The result was a verdict and judgment for the defendant with costs.

The St. Jacobs Oil Company v. The St. Josephs Oil Company.

We reported on November 19, 1887, an interlocutory application made to Mr. Justice Kay by Messrs. Charles A. Vogeler & Co. for an interim injunction against the St. Josephs Oil Company. The learned judge, as then reported, refused to grant an injunction on an interlocutory application. The case came before the same judge (in chambers) on February 3, when the following order was made:—"Upon the application of the plaintiffs and hearing the solicitors for the applicants and defendant and upon reading the pleadings in this action it is by consent ordered that the defendant his servants and agents be perpetually restrained from infringing the plaintiffs' trade-mark 'St. Jacobs Oil' and from selling or offering for sale any medical compound under the title 'St Josephs Oil' or using the said title or any other title resembling the same or only colorably differing therefrom and from passing off or attempting to pass off and from enabling others to pass off any medical compound not of the plaintiffs' manufacture as or for the goods of the plaintiffs' company by the use of the words 'St. Josephs Oil' or in any other way. And it is ordered that all further proceedings in this action be stayed except for the purpose of enforcing this order."

Professors Liveing and Dewar have re-examined the oxyhydrogen flame with the spectroscope, and by aid of photography have mapped the lines in the ultra-violet part of the spectrum. They have thus found and mapped 780 lines.

TABELLÆ AND PASTILS.

THE paper thus entitled, by Mr. Harold Wyatt, jun., pharmaceutical chemist, which, as we mentioned last week, was read on February 16 before the Liverpool Chemists' Association, was a very practical one, and we are glad to have an opportunity of printing it fully. The author's object was to introduce methods for the extemporaneous production of these forms of administrations based on the processes recommended in Baily's "Physicians' Pharmacopœia" (for the tabellæ), and in the London Throat Hospital Pharmacopœia (for the pastils).

The tabellæ are lozenges similar in composition to the nitroglycerine tablets of the B.P., so far as their basis is concerned, this being composed of cacao (containing its fixed oil), sweetened with sugar, and held together by means of tragacanth powder, water or proof spirit being used as an excipient, and the mass flavoured with essence of vanilla or rose.

According to the "Physicians' Pharmacopœia," the method of preparing is as follows:—The cacao and other ingredients, including the medicine to be administered, are rubbed together in a mortar, massed, in the same way as a pill-mass, with the liquid excipient, and cut into pills on a pill-machine. Each pill is then taken, dusted with a powder of equal parts powdered sugar and arrowroot to prevent sticking, and placed in a tube of brass or wood standing vertically on a tile, an accurately-fitting piston of wood giving a round form to the lozenge on being forced down the tube on the top of the pill.

The tablets, Mr. Wyatt says, may be turned out equally well without the mould, by simply placing the mass on the cutter of the pill-machine after piping, and pressing down the upper cutter upon it, oblong or square tablets resulting, according to the amount of mass used.

For most medicines this process answers admirably, yet there are some which could be administered in lozenge form were it not for their nauseous taste, which requires an amount of cacao and sugar to disguise scarcely compatible with the dimensions of an ordinary lozenge. In such cases Mr. Wyatt recommends glycyrrhizin, the glucoside from liquorice-root, and saccharin as substitutes for the sugar. He finds, for example, that 5 grains of antipyrin are rendered nearly unnoticeable by $\frac{1}{3}$ grain of glycyrrhizin, and that the intense bitterness of strophanthus is covered by the addition of $\frac{1}{6}$ grain of saccharin to every 5 minims of tincture in the tablet.

Tablets sweetened with saccharin may be used freely in diabetes and other diseases in which the administration of ordinary sugar lozenges would be attended with injurious results.

Another variation from the "Physicians' Pharmacopœia" is in the use of a warm mortar so as to melt the cacao, in which state the powders can be more easily incorporated. Other cases in which medicines may be administered in the form of tabellæ may be suggested by the following formulæ:—

Tabellæ Acidi Arseniosi.

Trituration of arsenious acid (1 in 100)	48 grains
Cacao	70 „
Saccharin	1 grain
Tragacanth powder	24 grains
Rectified spirit	30 minims
Essence of vanilla (1 in 10)	24 „
Distilled water	30 „

Place the cacao in a warm mortar, when liquefied add the powders, previously well rubbed together, and after the mass has set powder it with the help of the spirit and essence of vanilla, massing with the distilled water and cutting into forty-eight tablets.

Each contains $\frac{1}{100}$ grain arsenious acid, equal to one minim of liquor arsenicalis.

Tabellæ Aconiti.

Tincture of aconite	60 minims
Cacao	170 grains
Tragacanth powder	20 „
Saccharin	$\frac{1}{2}$ „
Distilled water	40 minims

Add the tincture to the cacao, melted, stir until the spirit is evaporated. Add the powders, mass with water, and cut into twenty-four tablets.

Each contains $2\frac{1}{2}$ minims tincture of aconite.

Tabellæ Antipyrin.

Antipyrin	120 grains
Cocao	120
Tragacanth powder	24
Glycyrrhizin	8
Rectified spirit	a sufficiency
Distilled water	40 minims

Make as tabellæ acid. arseniosi, massing with the water, in which the glycyrrhizin has been dissolved, and cut into twenty-four tablets.

Each contains 5 grains antipyrin.

Tabellæ Belladonnæ.

Tincture of belladonna	120 minims
Cacao	170 grains
Tragacanth powder	20 „
Saccharin	$\frac{1}{2}$ „
Distilled water	a sufficiency

Make as tabellæ aconiti and divide into 24 tablets.

Each contains 5 minims of tinct. helladonna.

Tabellæ Caffeinæ.

Caffeine	24 grains
Cacao	160 „
Tragacanth powder	24 „
Saccharin	2 „
Essence of vanilla (1 in 10)	12 minims
Distilled water	50 „

Make as tabellæ acid. arseniosi and divide into 24 tablets.

Each contains 1 grain caffeine.

Tabellæ Cerii et Bismuthi.

Cerium oxalate	48 grains
Ammonio-citrate of bismuth	48 „
Cacao	120 „
Tragacanth powder	24 „
Saccharin	1 „
Cherry laurel water	96 minims
Distilled water	a sufficiency

Make as tabellæ acid. arseniosi and cut into 24 tablets.

Each contains 2 grains cerium oxalate, 2 grains bismuth ammonio-citrate.

Tabellæ Gelsemii.

Fluid extract of gelsemium	60 minims
Cacao	170 grains
Tragacanth powder	24 „
Saccharin	2 „
Distilled water	a sufficiency

Make as tabellæ aconiti and cut into 24 tablets.

Each contains $2\frac{1}{2}$ minims extract of gelsemium.

Tabellæ Hamamelidis.

Fluid extract of hamamelis	120 minims
Cacao	170 grains
Tragacanth powder	24 „
Saccharin	2 „

Make as tabellæ aconiti and cut into 24 tablets.

Each contains 5 minims ext. hamamelidis.

Tabellæ Nitroglycerini.

Solution of nitroglycerine (1 grain in 100 minims)	24 minims
Cacao	100 grains
Tragacanth powder	18 „
Saccharin	$\frac{1}{2}$ „
Distilled water	a sufficiency

Make as tabellæ aconiti and cut into 24 tablets.

Each contains $\frac{1}{100}$ grain nitroglycerine.

Tabellæ Strophanthi.

Tincture of strophanthus (1 in 20)	120 minims
Cacao	90 grains
Saccharin	4 to 8 grains
Tragacanth powder	24 grains
Essence of vanilla (1 in 10)	24 minims
Distilled water	a sufficiency

Make as tabellæ aconiti and cut into 48 tablets.

Each contains $2\frac{1}{2}$ minims of tinct. strophanthi.

In aking all these tablets use powdered arrowroot with 1 per nt. saccharin as a dusting powder.

Co uding this portion of his notes, Mr. Wyatt said that as most edical men who have seen these tablets prefer them to th lozenges manufactured by the ton by the medical confe oner, so far as accuracy of medication is concerned, that will be advantageous to the dispensing chemist to bring ecimens of the tablets under the notice of his medical frienc thereby showing them that it is quite within the powe f the average pharmacist to turn out lozenges containin any medicine, accurately dosed, in a short space of time, pleasant to the taste as their appearance is to the eye.

Pas s are soft jelly-like jujubes, variously medicated, made m a gelatine and glycerine base, called in the Throat Hospi Pharmacopœia "Glyco-gelatine," which is made accor g to the following form :—

Gelatine	1 oz.
Glycerine	2½ „ by weight
Orange-flower water	2½ „ „
Ammoniacal solution of carmine ..	a sufficiency

Cut t gelatine into shreds and soak in the orange-flower water for two ho ; then transfer to a water-bath and heat with the glycerine until th gelatine is dissolved. Colour with the carmine solution, and pour in n oiled tray to cool.

The harmacopœia gives no formula for the solution of carmi but 30 minims of one made as follows is enough for 6 c of glyco-gelatine :—

Carmine	30 grains
Solution of ammonia	a sufficiency

Dissol the carmine in 6 drachms of the ammonia, filter, and wash the filter wi more ammonia until 1 fluid oz. has been collected.

The edication of the pastils is accomplished by melting an our of glyco-gelatine on a water-bath, adding the medicine, p viously rubbed to a thick syrup with glycerine, if a powde stirring until nearly cool, and pouring into an oiled mould utting the mass into 24 pastils when cold. A suitable m ld for small quantities is one with sides soldered on, square shape, 3 inches by 3 inches, divided into 36 squares by mea of deeply impressed lines on the under side, these causing he finished pastils to have a slightly rounded surface, th lines leaving a series of deep grooves which serve as a gu e to cutting.

Oran -flower water being distasteful to many persons Mr. Wyatt commends as a pleasant variety other flavoured waters ruit-juices, tolu, and glycyrrhizin.

Of t flavoured waters rose or cinnamon water may be used in ead of orange-flower water, and in the same proportion, w st 2 fluid drachms of cherry laurel water with 2¼ oz. of disti d water impart a pleasant almond flavour.

He h also used raspberry and lime-fruit juices, the raspberry i he same proportion as the orange-flower water, the lime-ju in the proportion of half juice and half distilled water.

A tol mass was made by using in the place of glycerine toluina l glycerine, made by heating 1¼ part of tolu with 30 of g erine and 6 of water over a water-bath for an hour, filterin n cooling, and making up 36 fluid parts by the additio of glycerine.

Glyc hizin, 24 grains, dissolved in the water used to soak th gelatine, imparted an excellent liquorice flavour, very us l to hide the taste of ammonium chloride.

In ac tion to the formula of the Throat Hospital Pharmacopo , the following have proved useful in many cases :-

Pastilli Apomorphinæ.

Apomorphine hydrochlorate trituration (1 in 8)	9 grains
Glycerine	10 minims
Glyco-gelatine (lime-juice)	1½ oz.

Rub th trituration smooth with the glycerine, add to the previously melted g o-gelatine stir until nearly cool, and pour in an oiled mould, cutting i 36 pastils on cooling.

Each astil contains $\frac{1}{32}$ grain of apomorphine hydrochlorate and is ual to 1 fluid drachm of syrupus apomorphinæ hydroc ratis, B.P.C.

Pastilli Codeinæ.

Codeine	4½ grains
Glycerine	2 fluid drachms
Glyco-gelatine (liquorice)	1½ oz.

Dissolve the codeine in the glycerine with heat, add to the melted glyco-gelatine, stir, and pour into an oiled mould, cutting, when cold, into 36 pastils.

Each contains $\frac{1}{8}$ grain codeine, and is equal to 1 fluid drachm of the syrupus codeinæ (Martindale).

Pastilli Cocainæ.

Cocaine hydrochlorate	1 grain
Glyco-gelatine (raspberry)	1½ oz.

Melt the glyco-gelatine, stir in the cocaine, allow to stand until the air-bubbles have risen, pour into an oiled mould, and cut into 36 pastils when cold.

Each contains $\frac{1}{36}$ grain cocainæ hydrochlor.

Pastilli Salol.

Salol	90 grains
Glycerine	90 minims
Glyco-gelatine (tolunated)	1½ oz.

Rub the salol with the glycerine, add this to the previously-melted glyco-gelatine, and heat until the salol is dissolved ; stir until nearly set, pour into an oiled mould, and cut into 36 pastils when cold.

Each contains 2½ grains salol.

Various other formulæ can be devised, according to the dispenser's ingenuity, taking the precaution, of course, to use no ingredient with which gelatine is incompatible.

The plain glyco-gelatine of the raspberry, lime-fruit, and the liquorice flavours, when cast in a large mould (such as the lid of an ordinary 3-lb. jujube tin), and cut into square or diamond shaped lozenges with a pair of scissors, is an excellent substitute for the glycerine (?) jujubes usually sold, containing, as it does, more than a homœopathic dose of glycerine.

HINTS TO CINCHONA-PLANTERS.

IN October last we referred to a paper read at a meeting of the Agricultural Society of Bandoeng, in Java, in which the question was discussed at what lowest sale price it would be possible to grow cinchona at a profit to the planter. At that period the price of bark had fallen to the lowest level yet recorded, and the question, "Does cinchona-growing still pay?" gave rise to the enunciation, in trade journals and circulars, of the views of experts, their consensus of opinion being that, at the unit then prevailing, the closest possible margin of profit had been about reached.

Mr. Berkhout, who read the paper in question, has published it *in extenso* in a Dutch-Indian planters' journal, and his advice to the Java cinchona-growers to conduct their operations upon a more systematic basis and sounder scientific principles than have hitherto been followed deserves the attention of others than his own countrymen.

Mr. Berkhout's principal aim is to impress upon cinchona-growers the necessity of learning to form as accurate an estimate as possible of the exact period at which it will pay them best to harvest their bark. That time, of course, depends upon several factors, partly of a speculative nature—such, for instance, as the unit value in Europe—but the tendency among planters generally has undoubtedly been to harvest too soon, and thus to overfeed the markets with young and imperfectly-developed cinchona, which, if left upon the trees for a few more seasons, would not only have increased in size, but also in alkaloidal richness. Unfortunately no statistics are yet available showing the exact progress, season by season, of all the Java cinchona plantations over a number of years; but Mr. Berkhout, in support of his thesis, quoted figures, partly based upon the working of a large plantation of *Ledgeriana* trees in the Preanger districts (South-Western Java), as typical of the average results which might be expected from a well-managed concern.

The figures are given in Dutch florins (12 florins = 1*l.*) per bahoc, a Javanese superficial measure, and appear to be all based upon practical experience, with the exception of the

unit value, which, of course, has been higher in reality than Mr. Berkhout puts it, a fact which only makes his results more favourable to the planter. The expenses of planting, including roads, buildings, cost of management, &c., would be 300fl. per bahoe during the first year, to which, at the end of the year, 30fl. would have to be added for interest at 10 per cent. on the capital invested. During the second and third years 50fl. would be annually expended per bahoe for repairing of roads, buildings, and all working expenses, the same item during the fourth year amounting to 30fl. per bahoe. At the end of the latter year, therefore, a sum of 600fl. per bahoe (including compound interest at 10 per cent. per annum) would have been expended on the plantation, but during that year the first harvest of bark, amounting to 1,200 half-kilos. ($50\frac{3}{4}$ kilos. = 1 cwt.), would be obtained. This bark may be put as averaging 3 per cent. sulphate of quinine, and yielding a net amount (deducting 15c. per $\frac{1}{2}$ kilo. for freight and sale expenses) of 252fl., at the rate of 12c. per unit. From the fifth until the end of the tenth year the plantation would require an annual expenditure of 30fl. per bahoe for working expenses, &c., to which compound interest at the rate of 10 per cent. per annum must be added, but concurrently with this expenditure the annual yield and average alkaloidal richness of the bark increases considerably, although at the same time the unit value in Europe is supposed to fall from 12c. to 7c. per unit. The yield and alkaloidal richness of the bark obtained average as follows:—

Yield per Bahoe from Stripping.

Fourth year ..	..	1,200 $\frac{1}{2}$ kilos.,	assaying 3	per cent.,	unit 12c.
Fifth „ ..	..	1,700 „	„ $3\frac{1}{2}$	„	„ 10c.
Sixth „ ..	..	2,300 „	„ 4	„	„ 9c.
Seventh „ ..	..	3,100 „	„ $4\frac{1}{2}$	„	„ 8c.
Eighth „ ..	..	4,200 „	„ 5	„	„ 8c.
Ninth „ ..	..	5,700 „	„ $5\frac{1}{2}$	„	„ 7c.
Tenth „ ..	..	7,500 „	„ 6	„	„ 7c.

Yield per Bahoe from Thinning and Pruning.

Fifth year ..	..	500 $\frac{1}{2}$ kilos.,	assaying $2\frac{1}{2}$	per cent.,	unit 12c.
Sixth „ ..	..	620 „	„ 3	„	„ 12c.
Seventh „ ..	..	740 „	„ $3\frac{1}{2}$	„	„ 9c.
Eighth „ ..	..	900 „	„ 4	„	„ 8c.
Ninth „ ..	..	1,100 „	„ $4\frac{1}{2}$	„	„ 8c.
Tenth „ ..	..	1,350 „	„ 5	„	„ 7c.

This typical plantation, therefore, during the first three years yields absolutely nothing; from the third to the end of the seventh year it is carried on at a dead loss, though the actual deficiency diminishes each year; but the profits during the eighth, ninth, and tenth years more than recoup the planter for his previous disbursements. At the end of the fourth year there would be a loss of 348fl. per bahoe, but from that time the planter commences to send bark for sale to Europe, and at the close of the fifth year he only finds himself 303fl. out of pocket, which amount further diminishes to 183fl. after the sixth, and to 16fl. after the seventh season. The balance then turns to the right side, for at the close of the eighth year the profits are 436fl. per bahoe, 813fl. after the ninth, and 1,683fl. after the tenth season. Of course, the actual figures will vary on almost every plantation, and Mr. Berkhout's statistics are intended merely to illustrate the importance of not stripping the bark from the trees too quickly, even though the unit value should be on the decline, and to demonstrate that, even if the unit should fall below 7c. per half-kilo. (or $1\frac{3}{10}$*d.* per lb.), a well-managed plantation of full-grown trees may still be carried on at a profit.

In the second part of his paper Mr. Berkhout urges cinchona-planters to carefully tabulate the cost and the yield of their trees year by year, and to divide their plantations in sections, each of which should be tabulated under a separate heading. It is not necessary to mark the limits of the various sections by paths, but bright-leaved shrubs (of which, perhaps, a profit may be made at the same time), should be grown between the plots as a line of demarcation. During the first three or four years the average height of the trees should be ascertained annually, and after that time the quantity of bark contained on the trees in each section would have to be calculated and checked at each succeeding season. This calculation is one of the most difficult problems in connection with cinchona cultivation, it being impossible to accurately estimate the quantity of bark on the trees by merely inspecting the section. The author, therefore, recommends that the ascertained results of different cinchona plantations in the island should be collated and published, and that these gardens, according to the size of the trees, their soil, elevation, &c., should be classified into several grades, so that a planter wishing to estimate the quantity of the bark on the trees of his own plantation may be guided by the ascertained results of other plantations situated similarly to his own. The calculations at present resorted to are not founded upon any sound basis, being generally arrived at in the following manner:—In a plantation large number of six-year-old trees, say 1,000, are stripped and found to give 2,000 kilos. bark. The probable yield of another six-year-old plantation, containing 800 trees per bahoe, is then calculated by taking 800 times the average of the yield of the 1,000 trees already stripped. Such an estimate does not take into account that on soil where trees are planted too close to one another the proportionate yield of branch and root bark is less than where there is a considerable distance left between the trees, and also that trees at the border of plantations are always stouter than those in the centre.

Mr. Berkhout thinks that one of the best methods to estimate the proportionate yield of bark of two plantations will be found to be the following: Given two plantations having trees of similar average height and shape, but the one containing 800 trees, averaging 9 centimetres in diameter at 5 feet from the ground, and $\frac{4}{5}$ centimetre average thickness of bark, while the other has 1,000 trees of 7 centimetres diameter and $\frac{3}{5}$ centimetre bark thickness, it is required to ascertain which plantation will yield most bark. To calculate this, imagine rings of barks stripped from all the trees at a height of 5 feet, and placed side by side in strips. The of the first plantation would cover a superficial area of

$$\frac{9^2 r}{4} - \frac{(9-2\times\frac{4}{5})^2 r}{4} \times 800 = 1{,}65 \text{ square metres.}$$

and those of the second garden

$$\frac{7^2 r}{4} - \frac{(7-2\times\frac{3}{5})^2 r}{4} \times 1{,}000 = 1{,}21 \text{ square metres.}$$

It is only, Mr. Berkhout thinks, by managing their plantations upon scientific and carefully considered principles that the Java planters will be able, after a certain time, to gain that control over the cinchona market to which the extent and the richness of their plantations entitle them.

A Russian Physician's Punishment.—Dr. Dreypölcher, one of the most fashionable physicians of St. Petersburg, a dignitary at the Russian Court, and one of the principal doctors of the Obuchoff Hospital, has been found guilty by a jury of refusing medical assistance to a female applicant at the hospital, and of dismissing her while she was in indecently dressed, thus accelerating her death through cold and exposure. Upon this verdict Dr. Dreypölcher was sentenced to three years' exile to the Government of Archangelsk (the most inhospitable province of European Russia) and deprivation of all his dignities and qualifications. The defence was that the woman had been refused admission to the hospital because there was no bed vacant, and strong efforts are being made to obtain from the Emperor the relaxation of the sentence.

A Continental Version of the Salford Tragedy.—A few days ago the principal pharmacy of Salford (a suburb of Manchester), remained closed in the morning, and was not even opened in answer to loud knocking and bell-ringing. The "district physician," being informed of this circumstance, ordered the shop-door to be forced. Nothing unusual was observed in the interior of the shop. But upon opening the door of the adjoining dwelling-house, the entire family, including the pharmacist himself, were found dead in bed. A letter was discovered, stating that the chemist and his wife had poisoned their six children (whose ages varied from 2 to 13 years), with hydrocyanic acid, and afterwards committed suicide by the same means. The assistant was at work in the laboratory on the ground floor, without having any idea of what had happened in the adjoining apartments. Financial difficulties are said to have been the motive of the act.—*Chemiker und Drogist.*

POST-CARD COMPETITIONS, 1888.—No. 1.

We now complete the publication of selections from the parodies on Shakespeare's "Seven Ages" which have been sent to us. We regret that we have not been able to find space for all that have been sent in, but we fear another instalment on the same topic would be getting too monotonous.

All the world's a stage,
On ich all pharmacists are merely players;
The ave their exits and their entrances,
An ometimes one man opens many shops,
His ts being seven ages. At first th' apprenti
Swe ng the floors and washing dirty bottles.
An en th' assistant, junior, with his cane,
An ining morning face, stinging so smartly
Wit nuch—as yet unnecessary—scraping.
An en the senior; in a dolefnl key,
Sig g, he tells a woful tale of "plucks,"
Lon ours and salaries so small. And then
Th ll-fledged C. & D. puts up his plate,
Ful strange plans to board the interloper;
Jea s in honour, sudden and quick to fight
All gus, hubble c'operation.
An en the principal, beloved all round,
Ful his art, and student still, be works
On e new "principle" or alkaloid;
We ersed in modern, rare, and curious drugs;
An he plays his part. The sixth age shifts
Int e fine old slipper'd gentleman,
Wit pectacles on nose, his youthful zeal
Stil urns, as with his shrunken hands he turns
Th ges of the "C. & D.," his pride.
Th ene of this eventful history
On ich the enrtain falls is mere oblivion;
For ten all his mixtures, pills, and potions,
His asters, blisters, liniments, and lotions.

ŒTATUM SEPTEM, QUARTUS.

Pharmacy's a stage,
An armacists are on it merely players;
The ave their exits and their entrances,
An ch one in his time plays many parts,
His ts being seven ages. At first th' apprenti
Str ling with the hardships of his craft.
An en th' improver, with a smattering of it al
We p in none. And then th' assistant,
Ma g up lost time and reading for "Exam."; "C nming" up his "Bentley," "Attfield," "lls";
See g e'en the much-desired distinction
Eve n dread Bloomsbury Square. And then in usiness,
Ful great schemes for fortune and renown;
Bes with opposition keen on every side,
He s his business slowly slip away;
An us he plays his part. The sixth age shifts
To ure, creditors surround,
An ohble up what's left. Last scene of all
Tha nds this history pharmaceutical,
Is t annuitant, buried in oblivion,
San ash, renown, sans energy, sans everything.

FRED. W. KNOWLES.
The Medical Hall, Altrincham.

All pharmacy's a drudge,
An l chemists and druggists nearly beggars;
The make their mixtures and their extracts;
An ne man in his time makes many pills.
His ts being seven ages. At first the apptice,
Ma g sad messes on his clean white apron.
An en the student with sad white face
Lea ng equations, botany, and pharmacy.
Th as a junior doing all the dusting,
An lling up bottles from almost morn till nt,
An hen as senior, having hard times with jr or and apprentice,
Who play him all the tricks imaginable,
And keep him well employed in looking after them.
Then as manager, with one small boy to plague his life,
He drags on three long years. An so he plays his part.
And then as master in the prime of life, with spectacles on nose
And scales in hand, he weighs out deadly poisons
With which he cannot trust the apprentice. Last scene of all
That ends this strange eventful history, in the borough workhouse,
Sans teeth, sans eyes, sans taste, sans everything.

J. C. KENT, 29 High Street, Windsor.

Yes! pharmacy's a snare,
And all the "chem- and drugg-ists" really martyrs;
They have such troubles and anxieties,
And each one in his life gets many starts.
His life in seven stages! First the apprentice
Smashing and crashing in his master's shop.
And then the assistant with his pipe in mouth,
And somewhat watery eye, returning late
And hiccoughy to his home. Next the student,
Cramming like turkey from his scanty notes
Taken in lecture hall. Then the candidate
Stuffed with long words, but not at all at ease,
Anxious to tell, but dazed and slow of speech,
Seeking the coveted diploma,
But sent back for three months. Then the pharmacist,
Meagre in frame and to be bald inclined,
Of manner mild, but generally "cut,"
Full of good tips and "how to do" odd things
Which he for nought 'll impart. The next stage shows—
Sad that 'tis so!—the "chemist broken down."
For nose-nippers no use! nor purse beside!
His threadbare vest, well cleaned, a zone too large
For concave abdomen, and his persuasive notes
Lacking the exercise of "What next, ma'am?"
Lie silent in his throat. Last stage of all,
End of this sad and mournful history,
Is simple beggary, or else "his union."
Thanks stores co-op.! Thanks "funk" at Bloomsbury!

E. H. STOREY, 42 Castle Street, W.

All the world's a stage,
And all the men and women physic-takers;
They have their fads and curious whims;
And one man in his time takes many pills.
To minister to his craze, behold the pharmacist
In embryo a mighty pestle wields, and
Does much dusty work.
Anon, another scene in his life's drama
Finds him a junior, smirking and rubbing hands
Before each lady customer, who he thinks
Must much admire his skill in mixing draughts
And neatly wrapping up sweet scents.
Then Science claims him for her own,
Ere Bloomsbury's rubicon be passed;
And anxious hours are spent with crucible
And test-tube 'midst strange smells,
With herbal studies by the way.
Installed within his shop expectant stands
The full-blown pharmacist, waiting his reward,
Ambitious that he high may rank
In the world's estimation.
But times are not such as they were of yore;
Though hard he works, yet cheaper works th store,
And difficult he finds the task
To hold his own on the world's stage.
As time creeps on, by dint of honest skill
He fills perchance a post with civic honours,
And then reviewing his past life
Congratulates himself on his success.

SPES.

The chemist's world's a stage,
And all "the trade" are merely players:
They have their prosperous seasons and "dull times";
But every chemist in his time plays many parts.
At first, the apprentice rising unwillingly
At half-past five to sweep the shop and wash the windows, graduates, and mortars;
Running on errands, delivering parcels of his
Master's physic through the neighbourhood.
The second, the assistant employing leisure hours
Deciphering labels on the pots and jars, inhaling varied odours,
And then intent on pharmacy, absorbing knowledge at the schools,
Along with fumes of sulphuretted hydrogen.
The third, he blossoms out into the smart drug clerk with perfumed handkerchief,
And rose in buttonhole, with partial eye for lady customers (one in particular), to whom he's most attentive.
The fourth, he cuts a graceful figure at the "Junior Pharmacy,"
Where "lemonade for two" is ordered; and when he can afford it,
At the Chemists' Ball, where wine's included in "the ticket."
The next day's champagne-headache's soon forgot, but not
The lovely forms and faces of the maidens fair he's met and floated with
On wings of love and music, breathing the edenia-scented air
That but for dust and heat seemed heavenly.
The Minor—Major passed he either constantly attends
The evening meetings at "the Square" giving off-hand opinions,
And sticking to them 'gainst ten older men
That can a reason render; or tends his shop, or goes in for the "factory made";
Scouring the planet earth to talk up his productions,
And gather roots, and barks, and herbs, to make them with,
Writing thereof to the great journal of the trade—the "*C. & D.*"
He purchases the business, buildings, trade-marks, goodwill of his former master.
His income grows apace, but with it, too, increase
Those that must live upon it; also the "rates and taxes," "medicine-stamps account," and last,
But never least, the ground-rent—State-earned increment.
A splendid building he erects, an honour to his business.

He's thought the equal of the "doctor," and in society a useful member.
The poor receive from him their medicines for nought;
The rich, who scorn the "stores," pay him with gratitude a profit good.
He waxes rich and fat, and maybe is selected alderman, or mayor, or member for the borough,
Or even minister consultant with the man of printed letters—Smith, you know.
The sixth, he's gliding on in age and usefulness,
And honour with the "trade" and public generally.
The seventh, his lease of ground-rent happens to expire,
And his good landlord forces up the rent, absorbing the old chemist's savings.
Therefore into the hard workhouse he would go
But for his sons and daughters, or his friends, or intervention
Of "Benevolent Fund," for, sorry sight! he is
Sans business, buildings, trade-marks, goodwill—everything.

MERCURIUS.

All the world's upon this page,
And all the men now mentioned merely chemists;
Each has his exams. and his grievances,
And some men in their time try many arts.
The facts shall be in seven stages:
At first the apprentice rolling pills with unaccustom'd arms,
And then the raw student with his cane
And shining boots, hurrying like the mail
To be in time for school. And then the junior
Striving to spread a hateful plaster
Under his master's eyebrows.
Then the senior, full of strange notions, aiming to be a "pard,"
Jealous of juniors, sudden and quick in temper,
Seeking to injure their reputation,
Slandering by word of mouth. And then
The master in fair round corpus, with a good apron lined,
With whiskers trimmed, and suit well brushed and ent,
Full of his "Squire" and "Modern Pharmacy."
So he plies his art. The sixth stage
Finds our trim and learned friend too soon
With many woes, and wealth denied;
His youthful vigour gone, with much beside.
His hopes all sunk, and with a faltering voice
Asks of his creditors to accept a shilling in the pound.
And then the final scene
Finds him in even greater misery:
In feeble health, glad to live on,
Sans money, sans friends, sans credit, or anything.

HERBERT CHAMBERS, 19 Norfolk Square, Brighton.

All pharmacy's a gaol.
And all the pharmacists are merely prisoners:
They walk their treadmill, and they wear their fetters;
And each one in his time has many labours,
His prisons being seven ages. First the youngster
Puzzling and frowning over his "Prelim."
And then the raw apprentice, with his pestle
And shining mortar, hammering pungent drugs,
And sneezing 'mid his tears. And then the candidate,
Stamm'ring thro' his "Minor" with sad, woful features,
Meeting th' examiner's eye. Then an assistant,
Full of his new "P. B.," and talking like an Attfield,
Quick at dispensing, suave and bland at the counter,
Seeking th' ingredient for some prescription
E'en after closing time. And then the chemist,
In pharmacy with labelled bottles lined,
With hollow eyes, and hairless-growing head,
Pushing his nostrums, cursing modern "stores";
So toils he thro' his sentence. In the sixth prison
We see a careworn, solemn-visaged man
Seated on stool. Unpaid bills hide the desk,
His pharmaceutic lore, a world too advanced
For his mean business. And his well-stored mind,
Back wand'ring to his apprentice days, cons o'er
The formula for "Gregory's." Last prison of all,
That ends this fate-bound druggist's history,
A workhouse ward, and pauper uniform,
Sans fame, sans gold, sans friends, sans everything.

W. L. L.

Store prices are the rage,
And all the trade at "Competition" players;
Each has his own idea of paying profit,
And some secure that end by paying part,
Or, say, one shilling in the £. At first the nostrums,
Healing or purging, cause his soul alarms,
And then pomades and perfumes, soaps and sponge,
And cosmetiques for face, or dye for hair,
Unwillingly he "cuts." And then the senna,
Rhubarb, and salts go at an awful discount.
Tinctures and oils go cheap. And then the mixtures,
Pills, and lotions sold at woful prices,
Make the poor chemist quake. Then his prescribing,
Late source of wealth, the doctors would retard,
Jealous of honour, sudden to seize all profit,
Seeking a rapid independence
Even in the druggist's shop.
Last scene of all
That ends the pharmaceutist's direful history
Is sheer insolvency, distress, oblivion,
Sans drugs, sans cash, sans health, sans everything.

EDWIN PERCY WRIGHT,
37 Golborne Road,
Upper Westbourne Park, W.

All the world's a hospital,
And all the men and women merely patients:
They have their lotions and their mixtures;
And one man in his time takes many Beecham's,
Dose, up to seven pills. At first the infant,
Crying 'gainst teething-powders in the nurse's arms.
And then the whining schoolboy, in his slippers
And long morning face, creeping like snail
Unwillingly to the senna. And then the lover,
Scented with cachous and Cherry Blossom sweet,
Makes ready for a stroll. Then a chemist,
Full of strange troubles, midst pills and drugs,
Zealous in business, always quick with remedy,
Seeking the double reputation
Of a chemist and druggist. And then the justice,
In fair round belly that needs bismuth,
With eyes severe on the Hop Bitters dispute,
Full of prejudice against all patent medicines.
So much for him. The sixth age hardly shifts;
For rheumatism has stiffened joints,
And "St. Jacob" on legs, and stick beside,
Is needed, and his big manly voice,
Troubled by cough, dies away in his throat.
Last scene of all, that ends this wonderful man,
Is second helplessness and merely being,
Cum pain, cum woe, cum cough, cum death.

E. A. EVANS, Machynlleth, N. Wales.

All the shop is full,
And all the bottles corked and ready:
These bottles have their fill'ings and their emptyings;
And the bottle in its time plays many parts,
Its uses being various. At first the infant
Uses it with milk just warm and sweetened.
Then the sickly schoolboy, kept at home
With nauseous draught is dosed by moth
Who physics him herself. Then the bot
In after years, holds quinine, pure or mi
To give the love-sick youth an appetite.
The busy business man it next provides
With bitters made from hops to recuper
His jaded powers; and for the worried h
Holds nostrums multitudinous prescribe
By family doctor; the old dyspeptic
Seeks in its powdery contents great relief
And last use of all, the broken bottle
Surmounts and guards the garden wall of
Sans cork, sans shape, sans smell, but ent

S. PHILLIPS, Horwich, Bo

All the world's a "mixture,"
A "molecule" of which does play the "
cary":
He with a panacea in all diseases
(And each one in his time meets many so
Regulates the dose to ages. First the inf
Convulsed and teething in the mother's a
And then the whining urchin, with his
hands
And madly aching tooth, creeping like sn
Unwilling to have it drawn. And the
youth,
Eager to be a man, would grow a fierce mou
To feast his sweetheart's eyes. Then at
hood,
Full of queer pains, or likely at the barber
Acquired a strange complaint. And the
alderman,
With rotundity of form, and feasting
death,
Has recourse to foreign *aquas*. Then,
again,
And next the gouty limbs, and dry and
cough
Which whistles in his sleep. Then last of
But here at length his remedies will fail,
For death is close at hand to garner in,
In spite of potions, unctions, pills, or anyth

PERCY HIRST, 10 Stamford Street,
Mossley, near Manchest

Pharmacy's a stage,
The masters and assistants merely players:
Having (at Bloomsbury) their exits and
entrances;
A chemist in his time plays many parts,
Comprised in seven ages. At first the 'pren
Iron pestle wielding, with sorely tired arms.
And then the young assistant brimming
with life
And healthy country face, creeping like snail
In trembling, to "the Square." And then
A. P. S.,
Vaunting his success, with patronising mann
Urging emulation. Then the young master,
Trading on his own account and careful
To display, in bran new gilt, his name and
merits,
Seeking for public approbation
E'en by the grocer hearding. Next, fortu
pet,
In fair bald head, with West-end knowle
lined,
With words severe for paints and varnishes,
Full of his "profession" and despising "trad
And yet he keeps a shop. The sixth age shift
Into the lean, store-ruined victim
Of that wondrous law, that companies are
human.
His still prim bottles, now a world too large
For his shrunk trade; and his big weekly gai
Turning once more towards penny takin
which
In early days were his. Last scene of all,
That ends this strange eventful history,
Is utter ruin, dependent on his fellows' aid,
Sans fame, sans means, sans hope, sans ever
thing.

T. FAWSSETT, 60 Bartholomew Close, E.C.

An ever-sick world this,
And fr their first appearance to their final exit
Do men d women refuge seek in physic.
Each st e has some peculiar ill,
From i cy to manhood. First the new-born babe
Confro the croup with ipecac. and squill.
And, th urmounting, tries its strength with teeth
Seeking lief from fevered peevishness
In pads d calomel. Next the growing child
Recruit ts quick-exhausted strength
With n ed food and steel. The maiden, then,
Untrus l, woman-like, of nature's ways,
Turns t osmetics, and, thus herself adorning,
Courts doubtful compliment
Of bein ature's conqueror. Then the man,
O'erwh ed with cares of business and of life,
Attemp the bard and ever-fatal task
Of fight nature, by struggling 'gainst himself,
'Til be last succumbs. The woman, too,
With co ounds chemical, in vain essays
Her bea y to preserve and conceal her age
Till Tir has mastered her. Last scene of all,
We see em striving still, 'gainst hastening ills,
With to ring limbs and failing heart and head,
Till, fin y disarmed, Death conquers them.

JACQUES.

The chemist's world's a stage,
And all handicraftsmen merely players
(Resolv into examined and examiner);
And ea an in his time plays many parts,
His acts ing seven ages. At first the 'prentice,
Whose *liminary rôle* is mixing paint.
And th the Junior, with Pharmacopœia,
Warrin with elements, and *physics*, too, betimes
And th the Minor, full of natural "orders,"
To satu ion. And then the Major
Cramm with laboratory lore, which ere long
Illumin the trade journals. The examined
Now be nes examiner, with eyes severe
And all e sciences at finger ends,
Or with easy call. The sixth age shifts
Into th Bloomsbury Council Chamber,
To forn ate profession without *status*,
Dream curriculum, research benevolence,
Whilst ckster and the unexamined stores
Have c the ground from all his brethren's feet.
Last sc of all, that ends this history,
Is occu ion gone, and mere oblivion,
Sans c omers, prescriptions, profits, everything.

G. G. MACKENZIE, Alness, N.B.

All the world's a stage,
And, fr their entrance to their exit weird,
Both m and women are enlinked in bonds
To th who follow medicine. And these bond
Are co ed by th' immortal number, seven.
First, there's the babe, who scarce dared see the light
Save that some worthy Æsculap were near.
Then, at a later age, to boyhood grown,
How oft the skill of Gregory is invoked
To help reluctant Nature in her task
Of building him. Next, in his order due,
The lover comes claiming the chemist's aid
To call sweet distillations for his choice.
A year or two, behold a soldier brave,
Needing with frequency the ready help
Of surgeon or of doctor to o'ercome
The dangers of his enterprise. Then, stouter grown,
As justice stands our hero, grave and wise,
But often bound, when gout or other pains
Compel, to have recourse to him who waits on all.
Scarec to be seen the day that marks the change—
Old age's shackles now reveal their grip
And formal courtesies are softly left
For ease and comfort, yet the failing strength
Sees in the staid M.D. his wisest friend.
Till, last of all—a weary sight to see—
Patched, bolstered up, and cobbled all these years,
Death claims his prey, baffling th' attendant doctor.

A. H. MILLER, 116 Mildmay Road, N.

The world's a store for drugs,
The men and women shreds of pharmacy.
They are the vials and the pill-boxes,
The gallipots, the mortars, and the drugs.
The feeding-bottle and the Ridge's food,
The coral ring that tempts the budding tooth,
Come first. The sponge that gives the half-blurred sum
Oblivion—that types the schoolboy stage.
What speaks the flowery time of lovelike scents,
The rouge and bloom of Ninon—secrets perilous—
Then plasters, bandages, false eyes, false legs,
And all the decorations art bestows
On wounded soldiers, bring us to stage four.
Tablets digestive and the seidlitz salts
That rectify the loaded paunch come next,
With potass., lithia—all the foes of gout.
Sixth come the pince-nez, and more ancient specs
That lend new eyes to age; the oils that drive
Thrice cursed rheumatic pains from crooked limbs.
Last—typed by the cotton-wool that shrouds the corpse—
The sanitas! The red permanganate!
Stifling the last faint breath of man's decay,
Slaying the slain! killing the taint of death.

R. COLWILL, Chemist,
5 High Street, Wood Green, N.

All the town's his stage,
And all the men and women there his clients:
They have their several ills and ailments;
And for each he has to act his part
At all their different ages. At first the infant,
Mewling for bottle at the nurse's hands;
And then the ailing schoolboy or his sister
At early bedtime who nauseous doses
Unwilling are to take. And then the youth,
Blushing like maiden, with a woful story
Made 'bout the pimples on his face, or wishing,
Much in haste, to grow a moustache or a beard,
Asks for a lotion. Sometimes the doctor,
Seeking by perfect sanitation
T' improve unhealthy homes, looks in and listens
To his description of the newest drugs,
With eyes alert and mind all fully stored
Both with the ancient and the modern treatment
That fits him for his post. And then the matron,
Anxious her children should be strong and healthy,
Comes for advice against the worms, dwindling
Their limbs and making their hose a world too wide
For their shrunk shanks. And last of all
To end this quite too faithful chronicle,
The aged crone, with second childishness
Wearing on apace, still seeks a remedy
For gums, for eyes, for taste, for everything.

J. S.

All the world's a mart,
A market wide in which the pharmacist
May buy and sell good wares of many kinds,
Or find a field for scientific skill.
'Tis thus he learns his art. As 'prentice first,
He dusts the shop and pounds his master's drugs.
As student next he burns the midnight oil,
And when his time is served, he thinks to pass
His "Minor" at the "Square." Then "qualified"
He boldly seeks in some historic house
A good assistantship. And "Major" passed
As manager he more experience gains,
Thinking to hold his own against the world.
For at this stage in manhood's haughty prime
Ambition knows no bounds. As master next
Upon his own account he starts in life,
And toils and strives though with but scant success
To gather gold. Until with patent pill
Or other nostrum rare he makes his mark.
And then by means of bold advertisement
And business tact he lines his pockets well.
But now, alas! he with his fortune made
Jilts pharmacy and lets his science rust,
While proudly he high civic honour seeks
Or parliamentary fame. But spite of all
His pompous pride and wealth, let him beware,
Lest fickle fortune leave in age and want
But a benevolent annuitant.

J. J. CHAPMAN, 20 Boundary Road, N.W.

The election of the best parody from the many sent us has been a work of considerable difficulty considering the general excellence of the whole. After a careful reading and marking of the whole series, we have decided that the prize should be given for the lines signed "W. L. L.," on the previous page, and we therefore award the guinea to

Mr. W. L. LONGSTAFF, A.P.S., 23 Bayswater Terrace, Bayswater Road.

We also award half a guinea each to

ALEXANDER WHITELAW, assistant to Mr. R. Lindsay, Peebles, N.B.
F. GALL, 85 Arundel Street, Landport (Gallus Banckiva).
FRED. REYNOLDS, Wharfe Cottage, Shaw Lane, Headingley, Leeds.
JOHN A. FORRET, Brougham Place, Edinburgh (Ætatum septem, quartus).

We regret that we have not space to give our reasons for this selection, which we may state are based on considerations of originality, rhythm, and well-sustained idea. All but one of those we have printed reached us on post-cards; that was a condition of the competition, and was an essential one. Several competitors sent in their verses too late, and these, too, were excluded from consideration. Two (whose verses appear) expressly stated that they did not wish to compete for the prize. We must compliment and thank our contributors for entering so heartily into the spirit of the suggestion.

Post Card Competition No. 2 is again announced on the first page of this issue, and post-cards in reply will be received up to and including Wednesday next, but not later.

A new competition will be announced next week.

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(FLUIDS, POWDER, SOAPS),
NON-POISONOUS, PLEASANT, AND BEST.
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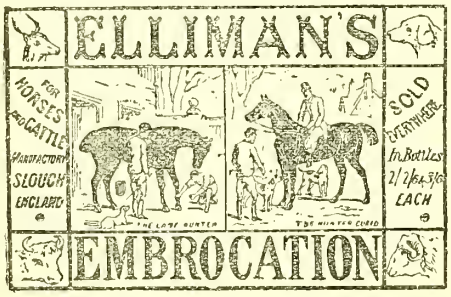

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CANNING WORKS MANCHESTER
FILTERS

SEE SEABURY & JOHNSON'S Advertisement of INDIA-RUBBER POROUS AND SPREAD PLASTERS on page 71.

SILICATED CARBON FILTERS
AERATED
PATENT MOVABLE BLOCK.
SEE ADVERTISEMENT, PAGE 18.

MUMFORD'S PARIS 1875
PURE CRUSHED LINSEED

17/- per cwt., bag included, 18/- in 28 and 56 lb., 20/- in 7 and 14 lb. parcels 1 lb. tins, 5/- per doz. Best Quality. No Oil Extracted. Carefully Cleaned and Ground, so as to retain the natural colour of the seed without being heated, G. S. MUMFORD, FARRINGDON ROAD, LONDON.

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For RHEUMATISM, GOUT, and SCIATICA, Chic Skin Diseases, Scrofula, Rickets, and some Diseases pe ar to Women.

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1/1½ and 2/9, is regularly stocked by the Wholesale Houses.

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NORWEGIAN COD FISHERI

NOW PROGRESSING, AND THE

REDUCED PRICE

OF THE

"A1" COD LIVER OI

TRADE MARK.

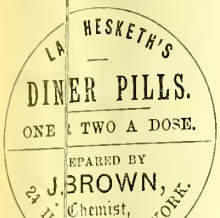
See page 26.

MEDICINE STAMPS—THE POSSESSI CASE.

MR. J. BROWN, 24 High Ousegate, York, sends us a co spondence which has passed between himself and the B of Inland Revenue, which shows how important it is some united action should be taken by the trade. We h done our part in the matter by obtaining the opinion of eminent counsel, which, as will be remembered, is d against the contention of the Board of Inland Reve One chemist (Mr. F. C. Heron, Hatton Garden) offe through us to contribute 5*l.* towards a guarantee fund

contest e question; we are willing ourselves to go another 10*l.* if e ugh chemists come forward to make the business a really rious one. We shall be glad to hear from combative c mists in the course of the next week or two.

Mr. B wn's case was as follows. On November 12, 1887, he had t familiar letter from the Board informing him that in selling a box of "Lady Hesketh's Dinner Pills" unstamped he had rendered himself liable to a penalty of 10*l.*; and he was asked to give any explanation why the Board should not proceed against him for that amount. The pills sold were labelled as shown in the margin, and it appears quite clear that the only ground on which the Board r ards them as liable is the fact that the title appears ir he possessive case. In the course of his reply Mr. Brown ve the following interesting details respecting the pills he d supplied:—



With egard to "Lady Hesketh's Dinner Pills," I have always nderstood they were a local digestive pill made from L y Hesketh's prescription, who, I expect, lived at Hesling n Hall, near York, as there are some hospitals founde here by Sir Thomas Hesketh, Bart., during the last century s an inscription on the outside intimates. These pills w e considered synonymous with "pil. aloes cum mastich" the "pilules ante-cibum" of the old French Pharmacopo (dinner-pills), as may be seen from Beasley's formulary 1848, and are there referred to as Lady Hesketh's or Lady Webster's pills. I went as apprentice in 1840 to Mr. Little, o lived in the same shop to which business I succeeded 1850, so I can speak personally for forty-seven years' owledge of their sale in York. I believe every druggi here has made them, and they could always be ohtaine when asked for. During my apprenticeship, and for som years after, they were put in a box as required, and when w kept a few ready the labels were written in the same m ner as the printed one we now use. The printed lahel h been used for seven or eight years, but the sale is very sn l, never exceeding 5*s.* in any year that I can recollect, nd frequently less. Sometimes they are not asked for for onths. There have never been any bills or advertisements oncerning them issued, nor in any way have they heen r mmended as "a nostrum, proprietary medicine, or specifi or as beneficial to the prevention, cure, or relief of any di emper, malady, ailment, disorder, or complaint incident t or in any way affecting, the human body," so as to render hem liahle, in my opinion, to the Stamp Duty as defined y the Act.

My ntention, therefore, is that, as sold by me, "Lady Hesket s Dinner Pills" are not liable; but submitting my opinio o the judgment of the Board with the preceding statem t, if I am in error, it has been done innocently for the sp e of near fifty years in my own case, and for shorter period n the case, no doubt, of others in York.

To t s the Board replied that, having considered the explanat n offered, "an information has been ordered against you fo having sold the preparation in question without a proper edicine-stamp," they would forego further proceedin if Mr. Brown would pay immediately one pound to the s rvisor at York. It was added, "The designation 'Lady esketh's' indicates a proprietary right, and involves liabili to the duty."

Mr. rown naturally paid the pound rather than fight the case s gle-handed; but soon afterwards he sent up a sheet of lah , asking that it might be stated whether any of these would ender the preparations they might cover liable to medic e stamp-duty. Among them were "Parrish's Chemical ood" and "Dr. Gregory's Stomachic Powder," which were arked "not liable." We presume the grounds of exem on were, in the first case, that the preparation is regarded as a food, and, in the second, that the compound is named in the Pharmacopœia. "Mrs. Taylor's Mixture" and "Brown's Specific" were marked "liable," as might have been expected. But then came "Godfrey's Cordial," "Gray's Drops" (a sort of Dalby's Carminative), "Goulard's Extract," and "Friar's Balsam," all of which were marked "liable." Respecting these Mr. Brown wrote to the Board at some length, explaining the nature of the preparations, and suggesting how they probably acquired these titles. The "Gray's Drops" he believes to be a corruption from "Grey Drops," and in that case evidently there would not be much difficulty in converting the label into a non-liable one. In reply the Board (January 28, 1888) first stated that, while they were always ready to mark as "liable" or "non-liable" any labels or handbills submitted to them, they must decline to enter into a controversy as to the ground of liability in each case, the labels being sent up in great numbers; but, they added, "'Godfrey's Cordial' or 'Friar's Balsam' are specifically charged by the schedule to the Act 52, Geo. III. c. 150; but if, as you state, the latter is in reality the common preparation called in the Pharmacopœia 'tincture of benzoin,' it need not be stamped if not held out or recommended for any disorder."

It is evident that the points of this discussion are left in too vague a condition to remain satisfactory, and it is to be desired that by some means a clearer and juster decision in regard to labels for medicines where the possessive case is used without any claim of a proprietary right being involved may be arrived at.

THE MEDICAL AND PHARMACEUTICAL PRELIMINARY EXAMINATIONS.

The announcement which we were enabled to make a few weeks ago, to the effect that the General Medical Council have resolved to accept a certificate of having passed the Preliminary examination of the Pharmaceutical Society *pro tanto* in lieu of their own examination, is one of considerable importance to those engaged in pharmacy. Hitherto a fair proportion of pharmaceutical apprentices and assistants have annually quitted the counter for the dissecting-table, and it is possible that the number will increase now that the preliminary requirements are less stringent than formerly. We have been in communication with the various licensing bodies and universities of Great Britain, in order to ascertain how far their practices agree with those of the Medical Council, and the results so far we now submit.

The facilities in question are traceable to the enforcement of the power which the Medical Council possesses of compelling medical students to register themselves as such when they commence their studies, or forty-five months before they proceed to the Final medical examination. This requirement remained a dead letter for a long time, but is now rigorously enforced, and the Medical Council has formulated an examination in general knowledge, which comprises:—(1) English language, including grammar and composition; (2) Latin, including grammar, translation from specified authors, and translation of easy passages not taken from such authors; (3) elements of mathematics, comprising (*a*) arithmetic, including vulgar and decimal fractions, (*b*) algebra, including simple equations, (*c*) geometry, including the first book of Euclid, with easy questions on the subject matter of the same; (4) elementary mechanics of solids and fluids, comprising the elements of statics, dynamics, and hydrostatics; and (5) one of the following optional subjects: (*a*) Greek, (*b*) French, (*c*) German, (*d*) Italian, (*e*) any other modern language, (*f*) logic, (*g*) botany, (*h*) zoology, (*i*) elementary

chemistry. A student who has passed the pharmaceutical Preliminary examination does not require to undergo the examination in English and Latin, and he need only take parts *b* and *c* of the elements of mathematics. Having passed the other subjects, he may enter on his medical studies in the Aberdeen, Durham, Edinburgh, Glasgow, and Victoria Universities, and be registered as a medical student; the certificate will be recognised by the examining bodies of these universities, also by the Society of Apothecaries, Royal Colleges of Physicians and Surgeons, London, the similar colleges in Edinburgh, and the Faculty of Physicians and Surgeons, Glasgow. The Cambridge, London, and Oxford Universities do not recognise any Preliminary examinations but their own. In the case of the Cambridge University, the student has to pass the "previous" examination before entering upon his studies. Candidates for any degree of the London University must have passed the Matriculation examination, a rule to which there is no exception. But although the degrees of these three universities are the most highly esteemed, they are, for various reasons, unobtainable by a large majority of those who enter the medical profession, and pharmaceutical students are not at all likely to be included in the minority. They will therefore turn to less pretentious examining or teaching bodies. Of these we have ascertained that the Royal London Colleges do not have a Preliminary examination of their own, but they accept the Medical Council's certificate of studentship; the Society of Apothecaries' examination is the same as the Council's, and if a student has passed the Pharmaceutical Preliminary he need not take up again the subjects in which he has passed, but may take up the remaining subjects at the Hall. The Royal Edinburgh Colleges and the Glasgow Faculty, conjointly or separately, accept the Pharmaceutical examination *pro tanto* in lieu of their own. The clerk of the Glasgow University also informs us that the Medical Faculty accepts the Preliminary examination of the Pharmaceutical Society *pro tanto*. These are all the bodies who do accept the examination directly; the Aberdeen and Edinburgh University Faculties, in consequence of our communications, are to consider the matter on the earliest opportunity, and it is expected that they will follow the example of the other bodies named. In this category we may also include the Durham and Victoria Universities. It will be understood, however, that these teaching bodies accept the certificate of studentship, so that all that a student of pharmacy in London has to do is to pass the examination of the Society of Apothecaries, or a student in Scotland may take the examination of the colleges, *minus* English, Latin, and arithmetic, become registered as a medical student, and then he has fulfilled all the preliminary conditions, except technical training, necessary for the licence or degree of any qualifying body in Great Britain except the Universities of Cambridge, London, and Oxford.

So far no arrangements have been made for the acceptance of any of the subjects of the Minor examination, such as chemistry, botany, or materia medica, in lieu of equivalent subjects in the medical examination, and there is no prospect that they will be. But a period of from two to three years' training with a registered chemist and druggist exempts the medical student from the collegiate training in practical pharmacy required at a certain stage of the medical curriculum.

THE COCA PLANT IN INDIA.

THE exceedingly high prices which coca leaves and their alkaloid cocaine attained shortly after the discovery of the anæsthetic properties of the latter a few years ago, as well as a suspicion that the Bolivian supply of the leaves uld fa short of the European requirements, were suf ent in. ducement for planters in Ceylon to try what the, uld do with the coca. Cultivation of the plant was also ertaken at the National Botanic Gardens at Buitenzorg, nea Batavia, and in the Madras Government cinchona plantati plants were also successfully reared. Since then it h become abundantly evident that South America can supp us with more coca than we have use for, and the cocaine ma factured there and exported to Europe in the crude state h greatly assisted in the marvellous depreciation in value wh cocaine hydrochlorate has suffered since 1885. It canno e said, however, that the cultivation of coca in our Indi possessions is entirely without interest, or that it uld be abandoned because of the low market value of drug indeed, it must be remembered that the latter cir stance is due in part to the low quality of the leaves whic re sent to this country, some yielding but a mere trace o kaloid. It remains to be seen how far careful cultivation an arvesting would raise the quality. Nearly two years go we published the result of an analysis by Mr. David per of coca leaves grown at Barliyar, in Madras, which sh d that they were fairly rich in alkaloid, the yield ha been 0 5 per cent. The cultivation of the leaves was commenced in the province of Bengal, principally on plantations, and the progress of the venture has carefully watched by Dr. C. J. H. Warden, chemical aminer to the Government of the province, who rec y contributed an important paper on the subject o the Agricultural and Horticultural Society of I . Dr. Warden's paper contains a full account of the n ods of cultivation, nature of the districts in which t leaves were grown, and the results of analyses of t leaves. In isolating the cocaine from the leaves Dr. Wa n had difficulty, like Mr. Hooper, in obtaining "spon eously crystallisable salts" on evaporation of aqueous tions, and accordingly his figures may be taken to indicate high results; but, on the other hand, a medical man wh ed the hydrochlorate in ophthalmic cases reports that he nd no difference in the physiological effect of Dr. Warden' kaloid from other cocaine, except that it appeared to have nicker and slightly stronger action. It could not, there , have contained much of the amorphous substance w Dr. Stockman has found to be possessed of highly tating properties.

The leaves examined were all recently cured, were found to contain from 5 7 to 10 42 per cent. of mo re, or an average of 9 21 per cent. on the nine specimens e ined, while the ash varied from 5 94 to 11 65 per cent.— erage, 8·42 per cent. A sample of leaves bought from a dr ist in Calcutta contained 13 34 per cent. of moisture and 7 per cent. of ash. The amount of crude alkaloid obtai from the leaves varied from 0 322 to 1·56 per cent.—avera 0 907 per cent. This must be considered a high resul r Dr. Squibb gives 0 892 as the highest which he has ained from any one sample of South American leaves, the cent. ages generally varying between 0 420 and 0·826. T drug- gist's sample which Dr. Warden examined contai only 0 045 per cent. of alkaloid. Closely connected with per- centages of alkaloid obtained is the influence of age, itude, &c., thereon. For example, a sample of young leav rown in one district yielded 1 069 per cent. of alkalo while mature leaves from the same district yielded only (1 per cent. Altitude, however, does not appear to have mu effect on the percentage of alkaloid. Taking two extren ases: the coca grown on the Matelli Tea Company's garde alpai- guri, at an elevation of 1,700 feet, yielded 1 022 per t. of alkaloids, while that grown at Arcottipore, in Cach t an

vation of ly 120 feet, yielded from 1·3 to 1·6 per cent. r does the mount of rainfall appear to have any influence ner way. ut this cannot, as has been pointed out, be l of the m urity of the leaf, Dr. Warden giving another king exa le, based on the results of the examination of samples rown in the Horticultural Society's gardens, pore: the rst sample having yielded only 0·358 per cent. total alka d, while the second, examined about six weeks er, contai d 0·674 per cent.

These dat re sufficient to show that the cultivation of the a plant in ndia is a marked success so far as its thera- tic value s concerned; and Dr. Warden has elicited im- tant fact egarding cultivation, the application of which uld enabl planters to place on the market leaves of much her and r re regular alkaloidal value than those obtained m South nerica. It is well to keep in mind, however, t as time es on less and less coca leaves will be brought m that sc ce, their place being taken by crude cocaine. e price c ainable for good leaves here is about 1*s.* lb., and obably more would be obtained for leaves more efully ha ested and packed. As much care should, in- d, be ex ded on the packing of coca leaves as upon tea, these art es resemble each other in their liability to de- ioration ring transit. The drug should be compressed l packed tin-lined cases, so that the damp may not reach We qui agree with Dr. Warden that to plant out large as in Ind with the plant would be a hazardous experi- nt; but i s at least worth sending home a hundred-weight two of g d leaves, and the price obtained for them will icate to e planters whether it will pay them to continue tivation.

The Bentley stimonia A meeting of the committee formed to promote a fund in honour of Emeritus Professor Bentley, whose long and eminent services as Professor of Botany and Materia Medica, to the armaceu al Society of Great Britain it is thought desirable commem ate. About thirty gentlemen were present, most them t professor's first pupils. Mr. Carteighe, who sided, st ed that he had had an opportunity of consulting profess, who was almost overcome, but very gratified at kind re embrance of him manifested by this movement. Cartei e had told him that the committee would like to r his vi s as to the form which the testimonial should e, the g eral desire apparently being to present him with urse of oney. Professor Bentley said that would be very eptable ut at the same time he would particularly that me permanent memorial of himself should be ociated th the Pharmaceutical Society. Consequently, er a few ore remarks, Dr. Langdon Down proposed, and Stocki er seconded, a motion, which was carried unani- usly, re mmending the collection of a fund to provide a portr of Professor Bentley, to be kept by the Society, the pr entation to him of a purse of money. An execu- comm tee was next appointed, Mr. Carteighe being ned ch man, Mr. S. Plowman honorary secretary and asurer, th Professor Attfield and Messrs. R. W. Giles, Hills, S. Taylor, Charles Umney, and B. H. Paul. Sub- iptions re taken in the room, the amount promised at time b ng about 120*l.* It was understood that in the rse of a week or two a more formal appeal would be made the pr ssor's past pupils and many friends, and it was imated at any amounts ranging from 2*s.* 6*d.* to 10*l.* 10*s.* ght at c e be sent to Mr. S. Plowman, at 17 Bloomsbury uare, to e included in the preliminary list.

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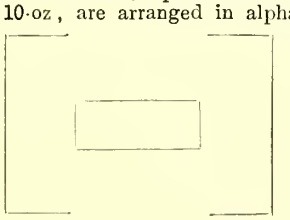
Look t Plaster The Board of Inland Revenue and their officers are evidently inspired with extra activity just now. We have two letters this week from emists Wigan, who, with others in the same locality, ve been sked by the Board to show cause why they should t pay 1 as a fine for selling a Mather's Royal Balsamic aster. e have not at present obtained full particulars of the claim put forward by the Board, but we are led to suppose that they regard the marking on the plasters, or perhaps he handbills accompanying them, assert a proprietary right. Plasters are as liable to medicine-stamp duty as pills, mixtures, and powders, and on just the same grounds. Mr. Mather, we understand, has promptly taken up the matter, and has put himself in communication with the officials of the Board. We hope to report shortly what definite decision has been arrived at.

WORK IN THE NEW EXAMINATION HALL.

FOR the first time in the history of the Pharmaceutical Society its examinations by the Board for England and Wales were this week conducted in other than the historic rooms of 17 Bloomsbury Square. The new examination hall at Pied Bull Yard, its chemical laboratory and dispensing department are so far complete as to permit the examination to be conducted with a degree of comfort far greater than was possible in the old apartments. The February examinations are seldom of a heavy nature, and for that reason it was thought to be advisable to test the efficiency of the new arrangements in anticipation of the heavier work which is expected in April, when it is hoped the whole of the internal arrangements of the new building will be complete. It will be in the recollection of those who have walked through the old rooms that the examinations were conducted in the large room immediately over the materia medica museum, and the ante-room behind it. In the ante-room were placed five tables at which the examiners in pharmacy and prescription reading and their examinees were accommodated. In the larger room were tables for the materia medica and botany examiners, a large dispensing counter, capable of taking six dispensers and having six sets of bottles, &c. The chairman of the board and his clerk also found a resting-place in this apartment. The arrangements here left much to be desired, the conducting of practical dispensing in a room where a *vivâ voce* examination was going on being particularly objectionable to all concerned. The new arrangements may perhaps be considered by some to go to the opposite extreme, so far as elegance is concerned, but there can be no two opinions as to the greater comfort of examiners and examinees. A member of our staff had the privilege of being present at the examination one day this week, and had every facility offered to him for inspecting the arrangements, which he reports as admirable, although, so far as the large hall is concerned, they were said to be of a tentative character. At the west end of the hall a table extending from side to side accommodates the materia medica specimens. Here Mr. Ransom and Mr. Claridge Druce were engaged in conversation with two candidates. Near them were the prescription-reading examiners (Messrs. Barnes and Taylor), at tables so far apart that the whisperings at one table did not disturb the persons at the other. The chairman was seated at the north wall of the room, with the "funking forms" in front of him. Immediately to the left of the chair were the pharmacy tables, the examiners (Messrs. Gerrard and Tanner) having half the breadth of the hall between them. The same may be said of Messrs. Bowen and Corder, who take botany at the east end of the hall. We have previously remarked on the extremely handsome and spacious appearance of this hall, and we can now say that it is as comfortable as it is spacious. Practical dispensing is conducted in the room which communicates with the hall. This room has been handsomely furnished in polished oak, shelving being carried round its four sides, upon which recess labelled bottles, chiefly 10-oz, are arranged in alphabetical order.



The two dispensing counters are placed as shown in the diagram. Each counter accommodates six candidates, and

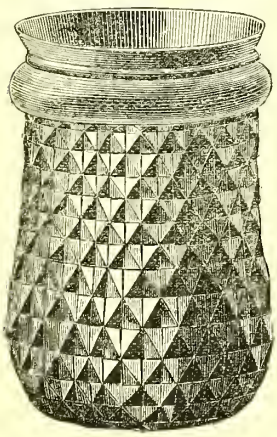
has gas supply and all other conveniences for facilitating work. The candidates stand at the outside of the counters, and the examiners (Messrs. Fletcher and Greenish) have seats at the table within the enclosure. The appearance of this room is extremely businesslike. The candidate cannot help feeling when he walks into it that he is in a dispensary rather than an examination room, and as there is every provision for his benefit, even to the extent of giving almost *carte blanche* as to time, the candidate will be the first to commend the large expenditure which the erection of the new hall has entailed. The only remaining part of the building which is used for examination purposes is a small room, which has been fitted up as a chemical laboratory. This room quite compares with the others so far as elegance is concerned. A good bench has been erected round the walls, at which there are half-a-dozen sets of reagents, and as many sets of examination specimens of chemicals. But we cannot help saying that the apartment is much too small for the accommodation of four examiners and four candidates. It gives too little air-space for the work which is done in it, and contrasts badly with the spaciousness of the other apartments. It may be said, however, that the bench-space allowed to each candidate is greater than in the old laboratory, and the compactness of the place is in favour of the candidate. The examiners whose duties confine them to the laboratory are Messrs. Blunt, Gale, and Symons, and Dr. Thresh. Mr. Carteighe, the president of the Society, generally gives them a help at the busier part of the day; and for that reason Mr. Gostling, the vice-president, is always present to take the chair in his absence from the hall. The practical chemistry of the Major examination is now conducted by Dr. Thresh.

All the examiners express themselves as highly pleased with the new arrangements, and consider that the change will be beneficial to all concerned. Mr. Rutherford Hill, the assistant secretary of the Society in Scotland, attended the meeting of the board from Monday to Wednesday for the purpose of noting any changes in conducting the examination which the new arrangements may have brought about, and we understand that two members of the Scottish board will be present at the next examinations. It is obviously important that the two boards should work on identical lines; but, as far as our representative could judge, the removal to the new premises has not been attended with any material change in the examination.

Notes of Novelties.

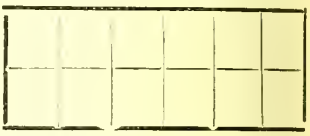
ILLUMINATION LAMPS.

In anticipation of an exuberance of loyalty on the occasion of the celebration of the silver wedding of the Prince and Princess of Wales, Messrs. E. A. Hearn & Co., of Kingsland Road, have brought out a new illumination lamp, to be used with night-lights, which many chemists are likely to be called upon to supply. The form of the lamps will be seen from our illustration. They differ from lamps of this kind which have previously been before the public in that the bottoms are flat instead of round, so that they can be placed in balconies, window sills, &c., or may be suspended. The colours of the glass are good, and include white opal, puce, turquoise blue, and hand painted ruby. The lamps are comparatively inexpensive, and as their sale is accompanied by a demand for night-lights, they are a specially good line for stock.



A SIMPLE PASTIL-MOULD.

Mr. J. W. Bowen, one of the members of the ard of Examiners for England and Wales, has recently rised a very simple mould for pastils, which deserves to be nerally known. It is intended more particularly for u at the dispensing counter, there being a growing tendency nongst medical men to prescribe pastils containing medic nts in



doses to suit special cases. The want of some arates which would ensure accuracy of division was Mr. owen's guiding spirit in the matter. He takes a square ece of plate and cements on three of its sides narrow slips plate-glass as shown in the figure. The square is then vided into smaller squares by means of grooved lines, an piece of glass to slip up to any row required, there to be cured by means of a piece of cork, serves to give the requ e surface. The diagram shows part of the plate arrang for a dozen pastils. The plate being ready, the pastil mass oured into it, and when it sets the glyco-gelatine sheet is overl, when it is found that on the under surface are ridg orresponding to the grooves in the plate. All that re ns to be done is to cut through these ridges with a pair of ssors, and the pastils are finished.

JOHANNIS NATURAL MINERAL WATE

The Johannis Natural Mineral Water Company, of Great Winchester Street, are now introducing this new tab vater into this country, and, we should think, are likely find their enterprise a successful one. The Johannis s g is situate at Zollhaus, in Nassau, Rhenish Prussia, near der-selters. It is a very deep spring, abundantly charg with carbonic acid gas, and forms a very pleasant sparkli able beverage. It goes well with wines, and especially f s an excellent addition to milk as a children's drink. It c ains alkaline, but no ferruginous constituents, and may b aken with much advantage in cases of gout and indigestio The Johannis water is supplied in this country in large cha gne bottles.

THE SODEN MINERAL PASTILLES.

These lozenges, we are told, are composed of the w of the mineral ingredients contained in the Soden spring ter of the Taunus in the proper proportion. They have ped into popularity in consequence of the recommendatio Sir Morell Mackenzie and the use of them by the Crown ice, and they seem to be now quite a fashionable edy for bronchial and catarrhal complaints. We are no om-petent to report on their therapeutic value, but a ade information we may state that they are sold in 1s. 1½d res, containing about two dozen lozenges. The lozenges e a slightly salty, but very agreeable, taste.

A Lawsuit Affecting a Bill for a considerable a nt, which is alleged to have been forged, will be shortly b ght before the International Tribunal at Alexandria. Pr sor Ludwig, of Vienna (whose accident we reported the er day), together with Professors Hofmann, of Berli nd Boeyer, of Munich, have left for Egypt to examine in documents affecting the case, with a view to discover w er forgery has been committed.

FAILUES AND BANKRUPTCY REPORTS.

Re HENRY CKERMAN, Redcliff Hill, Bristol, Wholesale Druggist, Chemist, and Dentist.

THE public xamination of this debtor was resumed at the istol Coun Court on February 16, and, no opposition ing offered t was ordered to be concluded.

ERNEST ARIE BOURJEAURD, 22 Davies Street, Berkeley Sqre, Surgical Appliance Manufacturer.

MR. G. WIFORD presided on Tuesday at the first meeting creditors der this failure, details of which have already peared in E CHEMIST AND DRUGGIST, the debts being 60*l.* 10*s.* 7, and assets 424*l.* 9*s.* 8*d.* The following were ong the c ditors:—

	£	s.	d.
Thorpe, G., Leicester	60	0	0
Willis, H., Islington	41	1	8
Bradley, Mark Lane	512	5	11
Proprieto of THE CHEMIST AND DRUGGIST ..	30	0	6
Churchil fessrs., New Burlington Street.. ..	37	11	6
Propriet *Lancet*	122	10	6
„ *Medical Press*	29	15	0

e debtor nied his indebtedness to Mr. Bradley, and said ere was sum of 35*l.* due to him. Mr. Bradley, on the ner hand, ade a long statement to the effect that he had t the de or money in small sums from time to time thout sec ty, but on the understanding he was to receive e cheque due from certain customers. When those eques wer paid the debtor failed to hand him the money, d he thou t he had been very badly treated. Mr. Boururd reto d that he had paid Mr. Bradley several cheques, d had he unable to get a proper account. Mr. Bradley nted to point a trustee, but the rest of the creditors sired to ave the matter in the hands of the Official ceiver, a that course was accordingly taken. Mr. Boururd said wished to offer a composition of 2*s.* 6*d.* in the und, but ould only give the business as security. The airman: o composition that is unsecured is likely to be proved b he Court. The debtor said his business had no odwill, ich was a realisable asset, but Mr. Bradley nied this nd said he could find a customer for it. The siness wa conducted in the debtor's mother's name.

Re CLU ERBUCK & GRIFFIN, Bristol, Drysalters, &c.

THE exa ination of Mr. Morgan and Mr. Shellabear, rtners of his firm, was resumed at Bristol on February 16, d was n inally concluded, the Court, however, refusing close the ecord until the examination of Mr. Jabez Clutterck was c cluded. This debtor was examined at considerle lengt egarding certain payments and loans, but the aminatio was again adjourned until March 9.

Re JOH EUSTACE DENMAN, Lower Phillimore Place, Kensington, Surgeon-dentist.

ON Thu day this debtor applied to Mr. Registrar Giffard r his ord of discharge. The receiving order was made on creditor petition on February 14, and the unsecured ahilities re returned at 1,641*l.* 5*s.* and assets 10*l.* From e Offici Receiver's report it appears that the bankrupt egan bus ess as a surgeon-dentist about ten years ago. In 879 he fi l a petition for the liquidation of his affairs by rrangem t, his liabilities being 1,173*l.* and his assets 95*l.* ubseque y his creditors resolved to accept a composition f 1*s.* in t pound. In 1883 he was adjudged bankrupt, his iabilities ounting to 2,326*l.* 8*s.* 1*d.* and his assets 297*l.* In anuary 1 34 his creditors agreed to accept a composition of s. 6*d.* in he pound, and in January 1885 the bankruptcy vas annu d. In July 1884 he effected a policy of insurnce on e life of a lady, being part of certain business rrangem ts which he alleges were existing between the ady and himself. The lady subsequently died, but the nsurance company refused to pay over the money. The ankrupt rought an action for recovery but lost, and subequentl ctions for libel and slander were brought, in none of which as he successful, and he attributes his failure to law costs and expenses in respect of these actions and consequent loss of business. The only offence reported was that of previous failure, and his Honour inflicted a nominal suspension of one month.

Re WILLIAM HILTON, Whitefield, Chemist and Druggist.

THE adjourned examination of this debtor was held at the Bolton County Court on February 18. The liabilities were set down at 972*l.* 19*s.*, and assets estimated to produce 185*l.* 16*s.* 11*d.* In answer to the Official Receiver the debtor said he failed in 1879, a dividend of under 10*s.* in the pound being paid. In March 1885 he borrowed 220*l.* from Mr. Herbert Richardson, with the view of paying the costs of securing his discharge and paying off a few debts. He gave his wife 100*l.* of the sum borrowed, and spent the remainder in knocking about. It took him about eleven months to spend the 120*l.*, during part of which time he was in receipt of 1*l.* per week and expenses, as an assistant drysalter to a Mr. Knowles. His wife, too, had 1*l.* per week from Mr. Knowles, that being part of his salary. The reason Mr. Knowles would not give witness his full wage was because he was given to drinking. In February 1886 he borrowed a further sum of 250*l.* from Mr. Richardson, who was a man of means. He told Mr. Richardson the other was finished and he wanted some more. He placed the 250*l.* in the bank, and commenced business in Whitefield in the May succeeding. The shop had never paid him. He kept a qualified assistant, to whom he paid on an average 18*s.* or 20*s.* a week. He did nothing but dust. When any of his customers wanted medicine dispensed they went to the next shop. He travelled amongst bleachers, and his company was much sought after by friends, who enjoyed his wit and geniality. In consequence of this he was little in his shop, and his business suffered. Mr. Richardson, who lent him money, was one of those who liked him most. In answer to Mr. Schofield, who represented Mr. Richardson, the debtor would not swear to any date he was with Mr. Richardson to the neglect of his business; nor would he swear that the outs he had with that gentleman did not take place when he was out of business. The examination was finally declared closed.

Re T. LIGHTBOWN.

THOMAS LIGHTBOWN, formerly a wholesale druggist at Rishton, applied, at the Preston Court last week, through Mr. Haworth, for his official discharge from bankruptcy. His Honour said this was a case in which a man went into business without knowing anything about it. He could neither keep books nor take stock. Mr. Haworth said he had been in business about two years. Perhaps that was longer than he ought to have done, but as it was a new business he evidently thought by continuing it would pay. His Honour said that ignorance of the business was no excuse, and he should suspend the discharge for nine months.

Re DAVID MARR, 254 High Holborn, Surgical Instrument Maker.

THIS debtor applied on Thursday to Mr. Registrar Hazlitt to pass his public examination upon accounts showing liabilities 607*l.* 0*s.* 5*d.*, and assets 147*l.* 11*s.* 2*d.* At the first meeting of creditors the debtor made no proposal to his creditors, and resolutions for bankruptcy were resolved upon. In the course of examination the bankrupt stated that he had carried on business for upwards of ten years, and his failure was chiefly caused by his expenses having exceeded his income. His household expenses had been very heavy in consequence of domestic affliction. He moved from Little Queen Street to his premises in Holborn about five years ago, but he did a better business at Little Queen Street. He had endeavoured to get a reduction of his rent, but had failed to do so. He tried once to take stock at Little Queen Street, but had never prepared a balance-sheet. He had never failed before. The examination was ordered to be concluded.

Re E. RIPPON, 85 Upper Street, Islington, Chemist and Druggist.

THIS debtor has petitioned the Court, and the usual receiving order has been made against his estate. Mr. Rippon

holds a lease of his premises at a rental of 100*l.*, and it has eleven years to run. He estimates the value of his stock at 50*l.*, and furniture at 5*l.*

Re E. WOODMAN, Canonbury, Dentist.

THE first meeting of creditors under this failure, details of which we published last week, was held on Wednesday before the Official Receiver. There was no offer, and the Official Receiver will wind up the estate in bankruptcy.

FAILURE OF CHEMICAL MANUFACTURERS.

AT the Liverpool Bankruptcy Court on Thursday, Mr. Registrar Bellanger granted a receiving order against William Lockwood and John Leith, trading as Lockwood & Leith, chemical manufacturers, and the Boundary Road and Parr Chemical and Alkali Works, St. Helens.

Obituary.

ANDREWS.—On February 17, at Annecy, near Aix-les-Bains, suddenly, Mabel, youngest daughter of Mr. Frederick Andrews, pharmaceutical chemist, 34 Leinster Terrace, Hyde Park, London.

BARCLAY.—On February 12, at Falmouth, Lucy Elizabeth, wife of John Barclay, chemist, of Woodlane, Falmouth. Aged 61.

BARNETT.—We regret to have to announce the death, on February 14, of Mr. Samson Barnett, the former senior partner of the well-known firm of Barnett & Foster, mineral-water engineers, Niagara Works, Eagle Wharf Road, London, N. He was till three years ago the senior partner in the firm, when he retired, leaving Mr. F. Foster the sole representative. He had not been actively engaged in the business for about twenty years. Mr. Barnett was known as a clever practical engineer, and he was never ashamed to own that he had risen from the bench, and in his young days had tramped the road with the late Sir Joseph Whitworth on the look-out for a job. He was one of the earliest to apply engineering skill to aërated-water machinery; and, keenly appreciating what was required, he soon made for himself a special reputation in that line. He was one of the earliest advertisers in THE CHEMIST AND DRUGGIST, his announcement appearing in the first issue of this journal. At that time (1859) he was able to state that he had given his whole attention to the construction of soda-water machinery for the previous twenty-five years. Mr. Foster (his son-in-law) joined him in 1868, and since then the business has been widely extended. Mr. Barnett retained a financial interest until about three years ago, when he retired altogether. He will be remembered by the older manufacturers in the trade for his manly, honest, and straightforward manner in all his dealings, and he goes to his rest mourned and kindly remembered by all who knew him.

HAYNES.—On February 7, Mr. Thomas Haynes, chemist and druggist, Butler Street, Manchester. Aged 62.

MANN.—On February 13, at Newcastle-on-Tyne, Mr. Robert Mann, pharmaceutical chemist. Aged 76. Mr. Mann was a native of Newcastle, and after serving his apprenticeship with Mr. Pearson, chemist, in the Side, accepted a situation with Messrs. Daglish & Wilkinson, wholesale and retail chemists, Sandhill. Here his chemical knowledge and business aptitude so won esteem and confidence that, on the death of Mr. Wilkinson, he became manager of the business, a position which he retained to the time of his death, the firm becoming known as Daglish & Ismay, on the assumption of Mr. John Ismay as a partner, and at the present day holds a premier position in the north of England, under the style of John Ismay & Sons. Between the late Mr. John Ismay and Mr. Mann there existed, during the many years they worked together in the building up of a great business, a strong personal friendship, and this feeling towards him has been continued by Mr. Ismay's successors, to whose interests he loyally devoted himself up to within a week of his death. He had a thorough knowledge of the drugs and chemicals of commerce, and this, together with his wholesome horror of adulterated goods, ear for the firm and its manager the confidence of the medi pro- fession, dispensers of medicines, and others through the Northern Counties. Mr. Mann took an active part the religious and Sunday-school work of the Noncon mist section of his district.

PARKER.—On February 7, Mr. William Botterill ker, chemist and druggist, West Street, Leeds. Aged 61.

YOLLAND.—On February 9, at Ashburton, Mary A the relict of the late Mr. George Wills Yolland, chemist.

Gazette.

PARTNERSHIPS DISSOLVED.

HAYWOOD, J. H., & JAMES, H. S., under the style c . H. Haywood, Nottingham, surgical appliance manufa ers.

HIGSON, D , & SONS, Nottingham, medical botanists.

STACEY & ENRIGHT, Bangor, mineral-water manufact rs.

THE BANKRUPTCY ACT, 1883.

FIRST MEETINGS AND PUBLIC EXAMINATION

ASTON, WILLIAM CLARKE, Church Bank, Tattenhal he- shire, druggist, grocer, and general dealer. F 29, Official Receiver's Office, Chester; March 8, ster Castle, Chester.

OAKLEY, JAMES, Birmingham, druggist and dr ter. Feb. 29, 25 Colmore Row, Birmingham; M 7, County Court, Birmingham.

RECEIVING ORDERS.

CROOKES, JOSEPH, Castle Street, Dundee, Forfarshi and late of Eckington, Derbyshire, chemist and drugg

OAKLEY, JAMES, Birmingham, druggist and drysalter.

ADJUDICATIONS.

ASTON, WILLIAM CLARKE, Tattenhall, Cheshire, dr ist, grocer, and general dealer.

CONDY, GEORGE, Knox Road, Clapham Junction, and C gne Road, New Wandsworth.

OAKLEY, JAMES, Birmingham, druggist and drysalter.

NOTICE OF DIVIDEND.

HORNER, JAMES READ, Salterhebble, near Halifax, cl cal manufacturer. First and final div. of 2*s.* 0¼*d.*, a ay, Official Receiver's Offices, Halifax.

SCOTLAND (PETITIONS FOR CESSIO).

The BRUCE OIL COMPANY, 19 Lynedoch Crescent, Gl ow, and J. INGLIS BRUCE, the only known partner hat company. To be examined in the chambers Mr. Sheriff Balfour, County Buildings, Glasgow, Feb , at 10.30 A.M.

THOMAS HEPBURN SCLATER, chemist and druggist, rk- wall, and residing in Albert Street there. To xa- mined in the Sheriff Court, Kirkwall, on Friday, M 19, at 11 o'clock.

POISONING CASES.—Last week the Carlisle Corone eld an inquest on the body of a child who had died t igh sucking the heads of lucifer matches.—At the Linco ire Winter Assizes, Emma Rose West, a young married an residing at Scawly, near Brigg, was sentenced to a n h's hard labour for administering laudanum to her childre ith intent to murder them on December 31 last.—An i est was held at Epping on Saturday evening regarding the ath of Frederick Francis, a hay carter and dealer. It ap red from the evidence of deceased's wife that he went the corn-bin and took out a bottle containing horse embro on, out of which he drank, thinking it was whisky. Dr. H ord said the contents of the bottle found in the stable uld cause death, being partly composed of spirits of salts. er- dict accordingly.

ME DRUGGISTS' SPECIALITIES.

Mutual a stance for this department, which is a standing eature of HE CHEMIST AND DRUGGIST, *is invited from generous p macists.*

Saponaceous Rose Dentifrice

The recipe f G. H. Harding, Esq., assistant surgeon-dentist at St. Thor s's Hospital).

R. cretæ præcip.	℥j.
sod. bicarb.	℥j.
iridis	℥ij.
sod. bibor.	℥ij.
sapo. hispan.	℥j.
terr. rosæ	℥j.
Co rosæ	℥ss.

In my o nion ♏x. or ♏xv. otto smells better than so much as al e, besides being of course more economical.

"ALF."

Locock's Lotion for the Hair

(The original recipe).

macis	℥ss.
juglandis	℥ij.
Melt and add	
æ rosæ	℥iiss.
irit rosemary	℥j.

M.

To be appl. with a brush every other night.

H. MACHON, Saffron Walden.

For the xt three formulæ we have to thank Mr. W. H. Lumbus, the Medical Hall, Walsall.

Castor-oil (Pills) Substitute.

t. aloes aquos.	℥iv.
po. Castile	℥j.
ngerine	℥j.

Mix the g erine with the aloes, add the soap, mass, roll as quickly as possible 36 gins into 24 pills, in argento.

Twenty ur pills in purple shouldered box for 1*s*. The above is a ery saleable article on account of the smallness of the pil

Essence of Celery (pro Celery Salt).

em. celery contns	lb. j.
pirit. vini rect.	℥xl.

Pe late.

Mix ℥iiss ith ℥xvj. common salt for celery salt.

Fragrant Dentoline,

a liquid p paration where the teeth are much decayed.

lycerine, pure	℥iiss.
quæ	℥xxxvj.
iq. cocci	℥iij.
cid. carbol., pure	℥j.
il gaultheria	℥ss.
incture quillaia	℥ij.

A few dr s of this preparation in half a wine-glass of water, and used n the ordi y way with a medium soft toothbrush.

Cholera Tincture.

Bacc. capsici	1 oz.
Ol. menth. pip.	1½ ,,
Camphoræ	1¾ ,,
Opii g.	¾ ,,
Rhei r.	¾ ,,
Croci stig.	45 grains
Zingiberis r.	60 ,,
Succ. solazzi	90 ,,
S. V. R.	40 oz.
Aquæ	10 ,,

Boil op , saffron, and solazzi in the water. Mix the liquor with the S. V. R., which the camphor and peppermint have been dissolved, and make wit he mixture a tincture of the other ingredients.

Dose:—ve to thirty drops to be taken in water every ten or fifteen minutes, til the pain and purging cease.

"TULIP."

Rosemary Hair-wash.

This does not make the hair grow, but it is a cooling and cleansing preparation:—

Acetic acid, B.P.	℥iv.
Vinegar of cantharides	℥j.
Spirit of rosemary	℥j.
Essence of white rose	℥j.
Water to	℥viij.

Mix.

RUE.

Dr. Abernethy's Mist. Aperiens.

Magnes. sulph.	℥vj.
Mannæ	℥ss.
Tinct. sennæ	℥ss.
Aquæ menth. virid.	℥iij.
Inf. sennæ	℥v.
Tinct. cardam. co.	℥ij.

M. Ft. mist. Capt. ℥iss. p. r. n.

Pil. hydrarg.	grs. iij.

Ft. pil. Alt. nocte sumend.

H. MACHON, Saffron Walden.

Dandelion Breakfast Cocoa.

	Parts
Powdered dandelion extract (Southall's)	4
Bermuda arrowroot	4
Powdered sugar	14
Powd. "cocoa extract"	14

Mix by sifting thrice; after first triturating the ext. tarax. with the sugar.

Contains over 10 per cent. dandelion extract, which is completely disguised.

TULIP.

Cologne Oil.

This is a convenient mixture for the ready preparation of eau de Cologne and for perfuming dental and other preparations—

	Oz.
Oil of bergamot	8
,, lemon	4
,, orange peel (sweet)	2
,, bitter almonds	2
,, lavender	4
,, rosemary	½
,, neroli	1
,, cloves	½
Extract of musk	8
Alcohol, to make	64

Use 8 oz. of the "oil" to 1 gallon of alcohol.

Druggists' Circular.

Vaseline Cold Cream.

Dieterich gives the following formula:—

White wax	2½ oz.
Spermaceti	2½ ,,
Oil of almonds	14½ ,,
White vaseline	6½ ,,
Distilled water	6½ ,,
Borax	150 grains
Coumarin	¾ grain
Oil of rose	16 drops
,, bergamot	16 ,,
,, geranium, French	5 ,,
,, rhodium	2 ,,
,, orris	1 drop
Essence of civet (1 : 10)	5 drops

Melt the wax, spermaceti, and vaseline in the almond oil, allow the melted mass to cool to a semi-liquid state, and beat it to a cream. Then add the distilled water in which the borax had previously been dissolved and finally add the perfumes, stirring constantly so as to produce a uniform cream.

Menthol Plaster.

We take the following formula from *Dieterich's Manual*:—

	Parts
Lead plaster	75
Yellow wax	10
,, resin	5
Melt, strain and add	
Menthol	10

Mix well and spread on cloth or leather.

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., February 23

BUSINESS has remained very quiet since our last report, and once more a week closes with a long list of articles worth less money than when we wrote last. The loss in value on these goods is but imperfectly compensated by the rise in a few other articles; but, fortunately, none of the fluctuations have been of a very drastic character. As regards chemicals we have to report a steady market for quinine, but without any business of great importance. Quicksilver, which had a fall at the end of last week, has since recovered, and closes rather better; mercurials, of course, follow the change. Crude camphor has further given way, but refined remains fairly steady. Citric acid may be pronounced a shade better, and carbolic is still advancing. Salicin has been doubled in price. Arsenic on the spot is a little dearer, and borax remains steady, but antimony must be quoted lower.

Spices are weak, and at the drysaltery auctions on Tuesday shellac, turmeric, and Japan wax suffered a further decline. The isinglass sales also resulted in lower values for that article. To-day's drug sales were very heavy, and offered no points of any particular interest, although several alterations were established. The principal advance was in ipecacuanha, but senna also sold a little dearer, while beeswax, honey, and dragonsblood moved off at full rates. Vanilla of good quality is higher, but ordinary lots did not fetch quite the same rates as at the last sales. Russian anise, Cape aloes, cardamoms, galls, gum kino, gamboge, musk, and rhubarb were all cheaper.

Although reports from Norway speak rather favourably of the fishing, cod-liver oil is offered by speculators at lower rates than the position appears to warrant. Olive oil may also see a decline shortly, but petroleum is dearer. From Trieste we hear of a slight advance in Dalmatian insect-flowers.

SOME DIVERSION WAS INFUSED in the auctions to-day by a few remarks offered by Mr. Figgis (Lewis & Peat) on the subject of the comments which are made in this journal from time to time with regard to the quality and denomination of certain drugs offered for sale. To-day, when offering some civet, the quality of which was not beyond reproach, and subsequently a lot of "Carthagena" ipecacuanha, Mr. Figgis accompanied his offer with a running comment on the risk which purchasers would incur of having it stated in "that dreadful CHEMIST AND DRUGGIST" that they had bought goods of spurious or inferior quality, and he therefore cautioned his clients that the civet was sold "with all faults," and that probably no worse quality could be found if they searched for it. As regards the spurious ipecacuanha which his firm sold the other day, "well, everyone had had an opportunity of seeing the samples, and knew what he was buying." The wholesale druggists did not, Mr. Figgis thought, interfere "with this journal, and they in Mincing Lane, *per contra*, did not want to be interfered with in their business by THE CHEMIST AND DRUGGIST." Mr. Figgis having delivered himself in this strain, and nobody appearing anxious to continue the conversation, the subject dropped.

MR. FIGGIS AS A PARLIAMENTARY CANDIDATE.—At a meeting of the council of the Liberal and Radical Association of Hampstead, held on Wednesday, it was agreed that Mr. Samuel Figgis, of Messrs. Lewis & Peat, Mincing Lane, brokers, should be invited to contest the division as a Gladstonian Home Ruler. Mr. Figgis is an Irishman by birth, and has lately taken a rather prominent part in polit in north-western London. The other day he visited to be present at the reception of the Marquis of Ri Mr. John Morley. Hampstead is not a very promis stituency for a Home Rule candidate.

REGISTRATION OF FIRMS.—Copies of the Registr Firms Bill have been issued to Parliament. The B exhaustively with the term "firms"; the manner particulars of registration and penalties in default; and that any person making false returns shall be liabl years' imprisonment, with hard labour. Power is also to the Board of Trade to make, revoke, or alter certa and to appoint additional officers under the Act.

THE FRENCH MINISTER OF COMMERCE has laid the Chamber of Deputies a Bill increasing by 30f. kilos. (about 12*s*. per cwt.) the Customs duties o pepper, cocoa, cinnamon, and cloves, except such as produce of French colonies. The project is view great alarm by produce merchants and brokers, espec Hâvre, which is in danger of losing one of its stapl should the Bill become law.

It is stated that Mr. A. M. Chance's process for the of sulphur in alkali manufacture (on which a paper read before the Society of Chemical Industry on Mar a commercial success, and that the Yarrow Chemi pany and Messrs. Sullivan & Co. have taken out lic work it.

CONSIDERABLE ALTERATIONS HAVE BEEN MADE service of the P. & O. Steamship Company, and dire of steamers will now run to Bombay, Calcutta, China, and Australia, without transhipment at any po company's lines of communication with the Contine also been increased and accelerated, while the passa have been reduced.

AT the annual meeting of the Newcastle Chemical Company, held on Tuesday, at Newcastle, the ch announced that the success of the salt works was esta beyond doubt, and they might fairly expect at the state of working to produce 50,000 tons before the this year. They were now able to produce 220 t 77 per cent. caustic soda weekly, a quantity which be increased to 450 tons by about the middle of the y

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AT the half-yearly meeting of the shareholders of B Mond & Co. (Limited), alkali manufacturers, Nort held at Liverpool on Tuesday, it was announced th balance-sheet showed a balance to credit of 89,111*l*. 19 which, with 35,544*l*. 11*s*. 9*d*. brought forward from t vious half-year, made a total of 124,656*l*, 11*s*. 7*d*. Di of 7 and 25 per cent. on the preference and ordinary respectively were declared.

ACID (CARBOLIC).—Crystals rising, owing to the s of crude. Manufacturers look for higher rates in th future.

ACID (CITRIC).—There is very little change, but p a slightly better feeling is apparent, although we that 1*s*. 7*d*. per lb. would still buy on the spot, f delivery being quoted at 1*s*. 7¼*d*. to 1*s*. 7½*d*. Some h is said to have been done this week at 1*s*. 6¾*d*. spo terms. Juice remains very firm in Messina.

ACID (OXALIC) still remains at 3½*d*. to 5½*d*. per lb little business. *Sal acetos* neglected at 5½*d*. per lb.

ACID (TARTARIC) neglected at 1*s*. 6⅜*d*. for *foreign* and a trifle more for *English* acid.

ALMEDINA.—Forty bags of this article were again to-day. There was no bidding, but we understand th per lb. is required.

ALOES.—Of *Cape* aloes, 143 cases were offered to-da

ugh some f the holders were rather anxious to realise, demand v s a very languid one, and only a small pro- on sold a decline of 1*s.* to 2*s.* per cwt. Good hard to um, 22*s.* 20*s.* 6*d*; partly drossy, 20*s.*; ordinary drossy dull, from 7*s.* down to 14*s.* per cwt. Of 133 boxes and mall gou s *Curaçao* aloes offered, a fair proportion was at 24*s.* fo fair Capey (boxes), and 26*s.* to 31*s.* (gourds); non cind y and dark, partly without reserve, 14*s.* to per cwt. A rather unattractive assortment of *East an* aloes mained comparatively neglected—a few lots y good ha hepatic in skins sold at 85*s.* to 87*s.* 6*d.*; and 10 ordinary laekish at 45*s.* per cwt. Good hard Socotrine inable at . 10*s.* per cwt.

ISE.—*R ian* seed is declining in value, 34 bags being "witho reserve" at 17*s.* 6*d.* to 18*s.* per cwt., but the ty was r her more dusty and stony than usual. For er lot 1 . was refused. Twenty-five bags *Star anise*, rted *vi* Aden, apparently genuine China seed, but out flavo (exhausted ?), sold at 60*s.* to 62*s.* 6*d.* per cwt. fresh s d is not offering just now; from 70*s.* to 75*s.* wt. is th nominal price.

NATTO. Thirty baskets Ceylon *seed*, fair to good bright ty, sold -day at $2\frac{1}{4}$*d.* to $3\frac{1}{2}$*d.* per lb. Pará *roll* remains neglecte Thirty baskets were offered to-day, but no as mad and the whole bought in at 1*s.* 3*d.* to 1*s.* 6*d.* b. for ra er dark to fair quality.

TIMONY asier, at 45*l.* to 47*l.* per ton.

ECA NUTS.—Eleven bales of good quality sold at 16*s.*

GOL.— rather heavy quantity of Cape argol, newly ed, was aced for sale in the weekly auctions, and 130 e 168 t s thus offered sold at 85*s.* for fair but dusty 78*s.* to s. 6*d.* for pinky, and 60*s.* to 69*s.* for pickings.

SENIC almost unobtainable on the spot, but for early ery goo white is still to be had at 11*s.* 6*d.* per cwt. e spot ere are buyers at 12*s.* per cwt.

LSAMS. *Canada* remains firm at the recent quotation. *iba.*—T speculative movement to force up the price nues, b it affects our market less than Hamburg and York. *Peru* remains neglected at 4*s.* 6*d.* per lb. ment s l at 3*s.*), although there is still a feeble attempt k more oney. *Tolu* bought in at 1*s.* 5*d.* per lb. to-day.

RAX.—he opinion prevails that the article ought to be r, yet remains quoted at 29*l.* to 30*l.* per ton. It is howev , that arrangements may shortly be made which lead to n advance in the quotations.

CHU.—An odd parcel of long leaves sold to-day at the low p e of $2\frac{1}{2}$*d.* per lb, but the quality was rather sirable Good green stalky long leaves were bought in at er lb., d 24 bales fair greenish round, stalky, at $2\frac{1}{2}$*d.* *d.* per .

LUMB —The value of ordinary root, which is in large y, see s likely to fall still lower. About 300 bags were ed for le to-day and all bought in, dark mostly small 's; fa yellowish mixed, partly cleaned, at the same (16*s.* eing refused for this lot); common pickings at er cw

MPHO —*Crude* is still on the decline. At to-day's ons tubs Japan were bought in at 87*s.* per cwt. nally 5*s* being suggested, but there were no bids.

NNAI INDICA.—An offer of 3*d.* per lb. was accepted 0 bal stalky and dusty tops.

RDA MS.—The quantity offered at to-day's sales was idera in excess of that offered at the last auctions, num red 306 packages. A considerable part of the ly w bought in, and prices, though frequently irregular, dec dly lower, the average decline being about 2*d.* to per l good qualities especially selling cheaply. The wing rices were paid:—*Ceylon Mangalore:* Fine bold 3*s.*; edium ditto, 2*s.* 2*d.*; small, 1*s.* 9*d.* to 1*s.* 6*d.* *True galo* CCC and MMM brands were bought in at 3*s.* b. *ysore:* Fine bold pale, 2*s.*; medium well-bleached artly specky and yellowish, 1*s.* 10*d.* to 1*s.* 9*d*; fair ium rownish, 1*s.* 6*d.* to 1*s.* 7*d.*; fair yellow, but skinny vy c es), 1*s.* 4*d.*; medium to small pale long, 1*s.* 4*d.* to d.; all yellow, 1*s.*; very small, 1*s.* to 11*d.*; unclipped, d w n husks, 10*d.* to 6*d.* per lb. *Ceylon Malabar:* fair medium size, rather brownish, sold at 1*s.* 6*d.* to 1*s.* 7*d.*, long greenish medium 1*s.* 4*d.* to 1*s.* 5*d*, specky, partly split and small brown, 1*s.* 3*d.*, dull specky and brown 1*s.* 2*d.*, small to very small 1*s.* 1*d.* to 9*d.* *Seeds* 1*s.* 3*d.* to 1*s.* 6*d.* per lb. The exports from Ceylon between October 1 and January 26 have been as follows:—1887–88, 123,662 lbs. (of which three-fifths to India and the East); 1886–7, 103,056 lbs.; 1885–6, 86,082 lbs.

CASSIA FISTULA.—Sixty bales old lean pods sold at 10*s.* to 10*s.* 6*d.* per cwt.

CHIRETTA.—Eight bales of common quality brought $2\frac{1}{4}$*d.*

CINCHONA.—The South American barks offered for sale to-day included a considerable quantity of *Lima* bark (366 bales), which was sold at very low rates—$2\frac{1}{2}$*d.* to $2\frac{3}{4}$*d.* for fair to good mossy, $1\frac{3}{4}$*d.* for common, and $4\frac{1}{4}$*d.* for one lot fine bold bright quill. Of 115 bales flat *Calisaya*, only a few sold at 1*s.* 9*d.* per lb. for fair hard damaged, and 6*d.* to 11*d.* per lb. for common papery, badly damaged. The bulk of the packages was not of very good quality. *Huanoco* bark sold at $7\frac{1}{2}$*d.* to 1*s.* 4*d.* per lb.; *Guayaquil* at 4*d.* to $8\frac{1}{2}$*d.* per lb. The exports from Ceylon from the commencement of the season (October 1) to January 26 are given as follows:—1887–88, 2,990,041 lbs.; 1886–87, 4,999,055 lbs.; 1885–86, 5,234,677 lbs. Telegrams subsequently received give the shipments up to February 5 as 3,400,000 lbs., against 5,600,000 lbs. at the corresponding period last year. The arrivals at Colombo by railway from the interior between October 1 and January 8 were 1,121 tons in 1887–8, and 1,988 tons in 1886–7. The following figures refer to the exports of cinchona bark from Java during the periods between July 1 and December 31 of each year in Amsterdam:—

—	1883	1884	1885	1886	1887
	lbs.	lbs.	lbs.	lbs.	lbs.
Government pl. .	300,940	253,062	270,579	359,591	381,477
Private pl. . .	370,312	356 838	429,879	982,105	1,635,729
Total .	671,252	609,900	700,458	1,341,696	2,017,206

CIVET.—Eight horns were offered and apparently sold at 5*s.* 6*d.* to 6*s.* per oz. Of the quality the less said the better.

COCAINE.—The demand remains very good, and several manufacturers are reported to be busy in executing orders. The lowest priced German brands offer at $9\frac{1}{2}$*d.* to 10*d.* per gramme.

COCA LEAVES.—Several lots ordinary leaves were bought in at nominal prices.

COLOCYNTH.—Of 38 packages *Turkish* colocynth a few were sold at 1*s.* 1*d.* for fair pith, slightly mixed with seed, and 6*d.* for ordinary black sea-damaged. Fairly good peeled apple, rather seedy and partly broken, is quoted at 1*s.* 4*d.* to 1*s.* 6*d.* Thirty-one cases *Spanish* fair peeled but seedy apple were bought in at 1*s.* per lb.

CONDURANGO.—The demand appears to be quite satisfied for the present, probably on account of the German market having been supplied direct from the producing country. Forty-four bales small dark and broken quill were bought in at 1*s.* 6*d.* per lb., 3*d.* less being suggested as the price. One bale damaged quill was sold at 1*s.* 3d. per lb.

CUBEBS.—At the auctions to-day ten bags good genuine, but stalky berries (slightly mixed with pale fruit) were bought in at 26*l.* 10*s.* per cwt., while two bags spurious berries, from New York, sold at 16*l.* 5*s.* per cwt. Seventeen bags were imported from Singapore per steamer *Glengyle* this week, and to-day we received another consignment of twelve bags *viâ* Amsterdam.

DRAGONSBLOOD.—Several parcels were offered to-day and sold well, with fair competition, and at steady rates, viz., 7*l.* 5*s.* for good bright seedy saucers, 7*l.* for slightly more drossy quality. *Socotrine* drop (10 cases) fetched 77*s.* 6*d.* for good quality, and 53*s.* for fair but darker ditto "without reserve."

ERGOT OF RYE.—The improved demand which is said to have existed privately was not apparent at the sales to-day. Twelve cases good *Spanish* were bought in without mention

of price, only 1*s.* 7*d.* being offered. A parcel of *Russian* ergot, also shown, was reported to have been sold privately.

FENUGREEK SEED.—Ten bales fair loose *Morocco* seed sold at 8*s.* per cwt.

GALLS.—A large quantity of Turkish galls was catalogued for auction to-day, but only a small proportion sold at very low prices—Fair green, 52*s.* 6*d.*; very small ditto, without reserve, 33*s.*; blue and green mixed, 34*s.* to 50*s.*; fair blue, without reserve, 40*s.*; white and green mixed, from 15*s.* to 21*s.* Very good blue galls are held at 62*s.* 6*d.* per cwt.

GAMBOGE.—Prices declined at auction to-day, several parcels being forced for sale at decidedly easier rates, viz. 12*l.* 17*l.* 6*d.* for good bright loose pipe, 11*l.* 2*s.* 6*d.* to 11*l.* 10*s.* for blocky pipe of fair fracture, 10*l.* 10*s.* to 10*l.* 15*s.* (a comparatively dear lot) for dull blocky and cakey, and 10*l.* 5*s.* for common soft cake.

GLYCERINE unaltered at 78*l.* for double distilled, sp. gr. 1·260.

GUM AMMONIACUM quite neglected. Several lots were bought in at the same rates as before, though a good deal less might be accepted; pale almondy block 50*s.*, loose drossy drop 30*s.*, medium almondy block 25*s.* per cwt.

GUM ARABIC.—There has been very little alteration in the market since last week's auctions, which resulted in a decline for East Indian gums. *Turkey sorts* are very scarce, and the extreme prices asked cause buyers to hesitate before purchasing; but, if the reports from Trieste and Egypt are correct, it is probable that still higher rates will rule before long, as hardly any gum is now forthcoming. Yellow sorts, dusty but bold mixed, are held at 16*l.*; selected yellow to good small pale, at 23*l.* to 25*l.* Holders of *Senegal* gum are very firm, and business is restricted to retail lots at high rates. At auction one case good pale dusty *Cape* gum sold at 8*l.* 10*s.* Privately *East Indian* gums are in fair demand, but owners ask full rates. The finer Aden kinds continue scarce, but several lots of poor quality and indirect import are offering without attracting much attention. As regards *Barbary* gums, Amrad is scarce, and there are inquiries at about late rates. We hear of no business in *brown gum* worth noting.

GUM BENJAMIN.—The demand is rather slack. A large quantity of *Siam* gum was put up for sale, but only five cases rather ordinary dark and woody quality, partly blocky and small, sold cheaply at 12*l.* 2*s.* 6*d.* An offer of 18*l.* 2*s.* 6*d.* was refused for fairly good brownish almonds (bought in at 19*l.*), and of 9*l.* 2*s.* 6*d.* for common small and woody. Of *Sumatra* gum a few lots sold, one bold white almondy seconds, brownish corners, at 9*l.* 10*s.* to 9*l.* 12*s.* 6*d.*, which was cheap; fair old brown almondy, 8*l.*; dark badly false packed, 7*l.* 10*s.* per cwt.

GUM ELEMI.—Fine white is not offering. About 20 cwts. (38 mats) common dark block were bought in at 4*s.* per cwt., and 7 cases still more ordinary, advertised for sale "without reserve" subject to paying charges, had to be withdrawn.

GUM EUPHORBIUM remains very cheap. Of 33 serons four were sold without reserve at 8*s.* per cwt. for quite common blackened and damaged; the remainder, fairly good but dusty and woody, were bought in at 22*s.* per cwt.

GUM GUAIACUM.—Five boxes ordinary dark block were bought in at 10*d.* per lb.

GUM KINO again 2*s.* lower, with sales of good *Cochin* at 32*s.* per cwt.

GUM MASTIC.—Good pale drop is held at 2*s.* 9*d.* per lb., yellow at 2*s.* 3*d.* per lb.

GUM MYRRH unchanged. Several lots of picked myrrh were offered, and bought in at 7*l.* 10*s.* to 8*l.* per cwt. Aden sorts quoted at 92*s.* 6*d.* per cwt.

GUM TRAGACANTH.—Of 1,519 packages offered last Friday a part was sold. *Syrian* firsts and seconds mixed, 8*l.* to 8*l.* 3*s.* 9*d.*; seconds, 7*l.* 2*s.* 6*d.* to 7*l.* 15*s.*; thirds, 5*s.* 10*s.* to 7*l.*; fourths and pickings, 5*l.* 7*s.* 6*d.* to 2*l.* 10*s.*; low, 1*l.* 10*s.* to 1*l.* 15*s.*; siftings, 3*l.* 2*s.* 6*d.* to 5*l.*; 398 packages *hog* were nearly all bought in or withdrawn.

HONEY.—A fair assortment sold well to-day at full prices. *Jamaica* good pale candied, 41*s.*; ordinary to fair hard, partly dull, 22*s.* to 28*s.* 6*d.* Dark brown liquid honey limited at 30*s.* For 6 kegs fair good-flavoured *Irish* honey 36*s.* is required, an offer of 35*s.* being refused.

INSECT-FLOWERS.—Since our last reports prices are stated to have advanced in Trieste, owing to the placing of several orders, and we now quote open flowers, 176*s.*; half-closed ditto, 186*s.*; closed, 196*s.* per cwt. We understand that the flower tops and stalks of *Pyrethrum roseum* are being offered by Trieste firms at the rate of 32*s.* per cwt., probably with the idea of the ground-up stalks being added to the powder of the flowers. The admixture could probably be detected by microscopical examination, but this would certainly be a tedious process, and exceptional care should therefore be taken at the present juncture to purchase only from thoroughly reliable firms.

IODINE, unaltered at 9*d.* per oz. for *crude*. *Iodide of potassium* is still held at 11*s.* 3*d.* per lb.

IPECACUANHA.—A further advance of 6*d.* to 8*d.* on the last sale prices, or 2*d.* to 3*d.* on those paid privately since then, occurred to-day. The 17 packages offered were mostly sold, selected, at 7*s.* per lb.; fair rather thin sound, 6*s.* 6*d.* 6*s.* 7*d.*; good stout, but damaged, 6*s.* 8*d.* refused. One case badly damaged mouldy "Carthagena" root sold at 4*s.* 5*d.*

ISINGLASS.—The periodical auctions were held on Tuesday and resulted in a general decline for all varieties except Saigon leaf, which sold pretty steadily. Of 403 packages East Indian isinglass the bulk sold as follows:—*Pena* common leaf, 1*s.* 8*d.* to 1*s.* 9*d.*; ordinary, 2*s.* 4*d.*; fair brown to pale, 2*s.* 7*d.* to 2*s.* 11*d.*; good, 3*s.* 2*d.* to 3*s.* 4*d.*; brown good small leaf, 1*s.* 11*d.* to 2*s.* 7*d.*; dark tongue, 1*s.* 6*d.* 1*s.* 10*d.*; ordinary to fine pale, 2*s.* 3*d.* to 3*s.* 6*d.*; dark pure 8*d.* to 9*d.*; fair ditto, 1*s.* 2*d.* to 1*s.* 5*d.*; fair *Saigon* leaf 4*s.* 5*d.* to 4*s.* 7*d.*; brown, 3*s.* 11*d.* to 4*s.* 1*d.*; round dit 3*s.* 1*d.*; common, 2*s.* 2*d.* *Bombay* common to good pure 6½*d.* to 1*s.* 5*d.*; fine bright, 1*s.* 7*d.*; bladder, 1*s.* 4*d.* to 3 fins, 10½*d.* to 1*s.* 2*d.*; old sort tongue, 1*s.* 2*d.* to 2*s.* 1*d.*; da gelatinous to fine pale pipe, 1*s.* 2*d.* to 2*s.* 10*d.* About one half of the 23,601 lbs. *Brazilian* isinglass offered also found purchasers at lower rates, viz., Pará lump, fine, 3*s.* 7*d.*; good yellow to common horny, 2*s.* 10*d.* to 2*s.*; tongue, good medium stout, 3*s.* to 3*s.* 3*d.*; good reddish to low thin, 2*s.* 4 to 1*s.* 5*d.*; honeycomb, 1*s.* 10*d.* to 1*s.* 2*d.*; pickings, 1*s.* 4 Maranham dull; horny to middling lump, 1*s.* 11*d.* to 2*s.* 10 tongue, 2*s.* 2*d.* to 3*s.*; pickings, 1*s.* 2*d.* per lb. Several packages Russian, China, and Hudson's Bay were bought in

JABORANDI LEAVES.—The steamer *Ambrose* brought 1 bags from Ceará to Liverpool this week. Four bales rather stalky leaves, yellow to greenish, were bought in at per lb.

KOLA NUTS.—Only 2 bags sold cheaply, at 3*d.* per lb. i whole but partly mouldy seeds.

MORPHIA.—The manufacturers quote nominally 5*s.* 9*d.* 6*s.* per oz.

MUSK.—The supply at to-day's auctions was rather lar comprising 52 tins pod and 22 bottles grain musk, but only few caddies of the finest first pile Tonquin. Buyers show a good deal of hesitation, and only by selling several tins a time, and accepting a reduced price, could a portion of t supply be placed. One caddy *Tonquin* pod musk, pile medium to bold well-trimmed pods, blue skin and und skin, sold at 100*s.* per oz., about 3*s.* below the last price. offer of 91*s.* was declined for another caddy of fine o fashioned partly blue-skinned pods. Small to medium p with hard top and underskin sold at 85*s.* per oz., and caddies rather small dampish pods with skin and und skin at 87*s.* to 87*s.* 6*d.* per oz. Five caddies fair old-fashion musk, medium to bold, with some blue skin, brought 85*s.* 6 fair third pile, slightly damp and badly trimmed, 33*s.* 6*d* 34*s.* One tin old, very wormy *Cabardine* sold at 10*s.* per o *trimmings*, at 1*s.* 10*d.* per oz.; and some *grain* musk at

NUX VOMICA.—29 pockets small dull brownish sold, without reserve, at 8*s.* per cwt.

OIL (CASTOR).—First Calcutta oil still sells at 4¼*d.* per

OIL (COCOANUT).—The steady aspect of the market s continues, although the demand is apparently satisfied

present. 25*l.*, acc tations r article h natives ements. doing on t

OIL (COD IVER).—The fishing in Norway is proceeding isfactoril and, although the catch is below that of 1885, livers ar very fat and the fish in good condition. From commen ment of the season until February 13 the result s: fish c ght, 1,100,000, against 350,000 last year and 68,000 in 886; livers, 2,330 hectolitres, against 765 hecto- es in 188 and 3,554 in 1886. Efforts are not wanting to ress the arket by offering for forward delivery at low es, even 3*s.* 9*d.* for new non-freezing, but there does not m any re on to anticipate that prices will rule so low. the aucti s 35 casks Norwegian oil (1887) of good colour e offered or which 3*s.* 6*d.* was asked, but the highest for whic was 2*s.* 3*d.* per gallon.

OIL (OLIV).—Our market is still very quiet, and if the ivals of *ogadore* oil should continue, lower rates will bably ru in the future. Our quotations are 33*l.* to 10*s.* for is variety; 34*l.* to 35*l.* for *Sicilian*, and 37*l.* for nish oil. With regard to the producing countries we hear t the Na es oil market is rather unsettled, because it is yet kno n when the new Italian import duties on oils, ich are c tain to powerfully affect the market, will come o force. t has come to light that the stock of oil at lipoli wa in reality much heavier than had been antici- ed, being ,602 tuns at the end of January, against 6,356 s on Jan ry 31, 1887. At the beginning of the month a d export emand, mainly for the United Kingdom, pre- ed at Ga poli, but this has now ceased. The oil-receiving son at G ipoli is practically closed; the supplies in the erior are hown to be small, and local dealers are willing ay from to 5 per cent. more than the export quotations. same s e of things prevails at Taranto, Rossano, and Adriati ports as regards ordinary oils. The Gioja crop, the othe hand, is very late this season, the olives being, act, stil n the trees. This crop promises very well, and ing the xt few months arrivals of oil at Gioja are likely e heavy but, on the other hand, the spring orders from sia, whi is a large consumer, have not yet been placed. Sicily ces have declined, and a pretty considerable iness ha een done at the lower rates (which have ruled n to 31 c.i.f. English ports), but at the close the market rom 10*s* o 20*s.* higher. The shipments from Messina in uary we 583 tuns, including 353 to England. As regards Ionian ands, in Corfu the arrivals of oil, being no longer for eati prices are declining, although still too dear for ort to t United Kingdom. From Zante shipments have n made y steamer to Liverpool, and latest quotation als 32 15*s.* c.i.f. From the Levant some further iness is ported, but sellers do not offer freely, and it is cult to ote. Some cargoes of Candia have been con- ted for nd holders are firm at the equivalent of about 10*s.* c. and i., for United Kingdom, there being little left ava ble for export this season. In Tunis prices re- n abov he level of United Kingdom values, and no busi- s is rep ed. From Morocco shipments have recommenced London y steamer, and may be expected to continue. hing d ite is known of the supplies. A small shipment Spanish l has also been made from Seville by steamer to erpool, t prices remain equal to about 36*l.* 10*s.* c. and f. Seville 7*l.* 10*s.* for Malaga, which are prohibitory for eral bu ess. There is no immediate prospect of any ortant ecline. Portugal offers no oil for export this son.

OIL (PE ROLEUM) irregular. *American* oil spot, $6\frac{5}{8}$*d.* to *d.*; mo h, $6\frac{9}{16}$*d.*; March, $6\frac{3}{8}$*d.* to $6\frac{1}{2}$*d.*; April, $6\frac{1}{16}$*d.*; tember ecember, 6*d.* *Russian* oil, spot, $6\frac{5}{16}$*d.* to $6\frac{3}{8}$*d.* total visible supply of refined petroleum on Feb- ry 1 w 805,636 barrels, against 958,729 and 1,108,878 the c responding dates of 1887 and 1886. Com- nting on the present position and prospects of roleum Messrs. W. H. Samuel & Co., of Liverpool, say t the parent success of the shut-down movement in erica l s had the effect of sustaining prices of crude oil n a m h higher level than formerly, and the continual rapid diminution of stocks, as long as such reduction continues, must necessarily have a hardening effect upon the market. The reduced production of 37,515 barrels per day for November has, however, been followed by an increase in December to 41,568 barrels per day; but notwithstanding this, stocks have been reduced by 1,319,740 barrels. Refined oil in America, after advancing from $7\frac{1}{2}$c. to $7\frac{3}{4}$c. early in January, has since remained absolutely unchanged. The home markets, and especially London, have gone through some remarkable fluctuations. Owing to the prevalence for an exceptional long period of easterly winds, a large number of vessels expected up in December did not arrive until well on into January, and in London stocks had become so limited that prices advanced to as high as 10*d.* for ordinary brands. At Liverpool, however, stocks have not at any time been exceptionally low, and that market has not therefore been subject to any serious upward movement.

OILS (ESSENTIAL).—*Star anise* on the spot is slightly weaker, and has been sold at 6*s.* 7*d.* per lb. this week. *Cassia* nominally 3*s.* to 3*s.* 1*d.* per lb. on the spot. The shipments of *Citronella* oil from Ceylon in the periods between October 1 and January 26 have been as follows:—1887-8, 3,576,784 oz.; 1886-7, 2,668,376 oz.; 1885-6, 3,216,396 oz. In London the article remains extremely dull at $\frac{15}{16}$*d.* to 1*d.* per oz., while $1\frac{1}{2}$*d.* per oz. is asked for Fisher's. *Cinnamon* oil unaltered, at 1*s.* 3*d.* to 1*s.* 6*d.* per oz. for fair quality, but the best brands are quoted much dearer. From Ceylon, in the periods between October 1 and January 26, have been shipped:—15,181 oz. in 1887-8; 39,229 oz. in 1886-7; 66,301 oz. in 1885 6. *Lemongrass* oil quiet at 2*d.* per oz., nearest price. Five cases Fisher's *Nutmeg* oil were bought in at $5\frac{1}{2}$*d.* per oz. ($5\frac{1}{4}$*d.* is the price), and one case Fisher's oil of *Pepper* at 1*s.* 4*d.* per oz. For a lot of Japanese *Peppermint* oil 4*s.* 3*d.* was offered, but the holder asks 4*s.* 9*d.* per lb. So-called *Rose* oil from Bombay (Indian geranium) was unsaleable at 2*d.* per oz., but sediment realised $\frac{3}{4}$*d.* per oz. Three cases extract of violets and 16 bottles "oil of neroli," from the Parfumerie des Alpes, in Nice, were taken out without mention of price.

OPIUM.—Our market remains stagnant. At Smyrna both owners and buyers are operating cautiously, owing to the uncertainty as regards the coming crop, but there is a little more doing. The weather in the growing districts is changeable, rain, hail and snow alternating, and if it continues in this manner severe damage may be done to the sowings.

ORANGE PEEL.—Large quantities are offering, but buyers hold off, and it is quite possible that lower prices may shortly be accepted. At auction only a few parcels fine thin cut *Malta* sold at 1*s.* 3*d.* to 1*s.* 4*d.* per lb.

ORRIS ROOT.—No change can be reported. Good *Italian* was bought in at 50*s.*; dark ditto at 28*s.* per cwt.

PAREIRA BRAVA.—Of two bales which have been offered time after time, one is now stated to have been sold at 5*l.* 10*s.*

QUICKSILVER has advanced from the lowest point (8*l.* 2*s.* 6*d*) which it has touched since last week, and now stands again at 8*l.* 7*s.* 6*d.* for second-hand, at which price there are buyers.

QUININE.—The market has been steady but quiet this week, and only a few transactions of importance are reported in German and Italian quinine. The official quotations remain as follows: *Howard's* bottles, 2*s.* 4*d.*; bulk, 2*s.* 2*d.* *Whiffen's* bottles, 2*s.* 2*d.*; bulk, 2*s.* to 2*s.* 1*d.* *Pelletier's* bottles, 2*s.* 3*d.*; bulk, 2*s.* 1*d.* to 2*s.* *Italian* and *German*, bulk, 1*s.* 10*d.* per oz.

RHUBARB in rather large supply, with sales of about one-third of the 130 cases offered at a slight decline in the value of fine *Shensi* root. The following prices were paid:—*Shensi*: Very fine bold yellow flat, three-fourths pinky fracture, not quite so good as the lot offered last week, at 4*s.* per lb.; pale medium to bold round, 2*s.* 4*d.*; very good medium to bold flat, 2*s.* 6*d.*; good round druggists' root for trimming, 2*s.* 3*d.*; good small round fair pinky fracture, 1*s.* 7*d.* to 1*s.* 9*d.*; small to medium flat, partly woody, 1*s.* 6*d.* to 1*s.* 8*d.*; small round, 1*s.* 6*d.* to 1*s.* 7*d.* For a parcel of bold, dark-coated, wormy root 1*s.* 2*d.* was refused. Dull to ordinary wormy pickings fetched $6\frac{1}{2}$*d.* to 9*d.* per lb. A few parcels *High dried* root sold at 7*d.* to 11*d.* per lb. for small dull to good, medium to bold, fair fractured root.

SALICIN.—On Friday last Messrs. T. & H. Smith & Co. raised the price of their brand to 20*s.* per oz., at which it has since remained. They report a fair inquiry at that quotation. Messrs. Böhringer & Sons announce that they still quote at 40 marks per kilo., or 18*s.* per lb., so long as their stock lasts. They think a further advance not unlikely, because there is a large and still partly unsatisfied demand, principally from America, while stocks are small, and fresh willow bark will not be obtainable until May.

SARSAPARILLA.—There is not much doing in this article, of which 92 bales were offered. Transactions were confined to some lots of sound grey *Jamaica* at 1*s.* 9*d.* to 1*s.* 10*d.*; damaged at 1*s.* 8*d.*; and wormy at 1*s.* 7*d.* per lb.; while 3 serons *Honduras* (Crown) sold at 1*s.* per lb.

SENEGA is dull, and the high prices recently asked would probably not be obtainable now. For 3 bales pale thin root, not chumpy, 1*s.* 11*d.* is asked, while 5 bales old thin dusty and chumpy root were bought in at 2*s.* 2*d.* per lb.

SENNA.—No less than 544 packages, including 76 *Alexandrian* were offered to-day. The greater portion consisted of common *Tinnevelly*, for which rather dearer rates were paid, about one-half of the supply selling at 6½*d.* for good bold green, 4*d.* to 4½*d.* for medium, and 3¼*d.* down to ½*d.* per lb. for thin greenish to very common black false packed. Fine green *Alexandrian* leaf sold at 1*s.* 8*d.*, small broken at 11*d.*, and fragments at 7½*d.* to 8*d.* per lb.

SHELLAC.—At the public auctions on Tuesday a further decline ensued, averaging 1*s.* per cwt. on *Second orange*, 2*s.* 6*d.* to 3*s.* 6*d.* on *Garnet*, 4*s.* on fine, and 1*s.* to 2*s.* on common *Button* lac. No less than 1,399 cases shellac were offered, and holders appeared anxious to meet the market, especially as regards Garnet lac; but in spite of this they only succeeded in selling about one half of the total catalogued. *Second orange* sold at 47*s.* to 48*s.* for fair to good; 43*s.* to 45*s.* 6*d.* (a few cases) for livery; 45*s.* for unworked; native, H in octagon. *Garnet* lac, fair to good bright free A C, realised 38*s.* to 38*s* 6*d.*, but some holders would not sell at the latter figure, and held at 40*s.* per cwt. Ordinary blocky and dull A.C. sold at 36*s.* 6*d.* to 37*s.* 6*d.* *Button lac*, unworked, fair to good bright firsts, 55*s* to 57*s.*; ordinary thirds, 48*s.*; good fourths, 37*s.* 6*d.* to 40*s.* per cwt. Since the auctions sales of TN second orange, February-April shipment, have been made at 47*s.* per cwt. c.i.f.; AC garnet, same position, 37*s.* 6*d.*; and TN second orange, March-May shipment, at 43*s.* c.i.f.

STROPHANTHUS.—Prices are steadily receding in face of the continued arrivals. At to-day's auctions 5 bales (395 lbs.) good brown seed, freshly imported from the Cape, were bought in at 15*s.* per lb.

TEA.—In *China* tea we have to report a very quiet market, dealers complaining of scarcity of orders from the country, and but very little shipping demand exists. Prices are without alteration, Tuesday's sales of 14,230 packages showing little, if any, variation, good Moning siftings (first crop) selling at 3½*d.* to 3¾*d.*, common S. Capers at 4¼*d.*, uncoloured Japan at 5½*d.* to 6*d.* Congous for price remain as last quoted, 3½*d.* to 3¾*d.* for very common Kaisow, and Monings show a slight hardening on rates of a fortnight ago. In *Indian* teas the demand has kept tolerably steady, though the inclination for some sorts has been slightly downwards. Sales at present are not very heavy, but, as we have pointed out before, there is not likely to be any dearth, at any rate of lower grades of Indian growths. *Ceylons* are in plentiful supply, but sell tolerably readily at about previous rates. One constantly hears of new sorts of tea—the latest is *Burmese* "pickled tea," the tea-leaves being plucked by the Burmese in certain districts and placed in boiling water. Being taken out and strained, and kneaded with the hands, they are pressed into bamboo baskets, and thus sent to the the market—the Burmese market, that is. Europeans do not appear to take kindly to the preparation.

TURMERIC.—At the auctions again lower prices have been accepted by holders, viz., 10*s.* to 10*s.* 3*d.* per cwt. for 125 bags fair to slightly wormy *Bengal* (just arrived). About 350 bags *Madras* and *Cochin* root were bought in.

VANILLA.—Over 450 tins were offered for sale to-day, and mostly disposed of at irregular prices, dearer for good, but rather cheaper for low-class beans. The following rates were obtained:—Common lean to ordinary chocolate, 3½ to 4*s.* 6*d.* to 8*s.*; fair to good uncrystallised ditto, 4½ to 8*s.* to 13*s.*; good to fine, 6½ to 8 inch, 13*s.* 6*d.* to fine, 8 to 8½ inch, 21*s.* 6*d.*; rather brownish, 4½ to 6*s.* 6*d.* to 10*s.* 6*d.*; ordinary dry, 3½ to 6 inch, 3 5*s.* 9*d.*

WAX (BEES').—Rather a heavy quantity was of day, but very full prices were obtained; viz., *Cape*, pale, 6*l.* 10*s.*; *Australian*, good pale grey, 6*l.*; ditto damaged, 5*l* 17*s.* 6*d.*; *Mauritius*, good brown, 88*s.*; brown to good pale, 80*s.* to 100*s.*; *Jamaica*, fine 5*l.* 12*s.* 6*d.* to 5*l.* 15*s.*; dark grey, 95*s.* per cwt.

WAX (CARNAUBA).—Twenty bags all bought yellow at 60*s.*, grey at 40*s.* to 45*s.* per cwt.

WAX (JAPAN).—Privately lower prices have been for some time, and at the auctions this week 50*s.* was taken for 8 cases rather yellow squares. Ten ca white square were bought in at 56*s.* nominally.

THE DUTCH CINCHONA AUCTIONS.

(*Telegram from our Correspondent.*)

AMSTERDAM, Febru 23.

At the public auctions of cinchona bark held th supply of 1,704 packages (including 57 of British origin) was offered for sale, and of this quanti packages were actually disposed of at an average u to 13 cents. per ½ kilo. (= 2½*d.* to 2⅓*d.* per lb.), or just below what is said to have been paid at last week's au London. Druggists' bark, broken quills and chip quill realised from 20 to 79 cents. per ½ kilo. (= 3¾*d.* t per lb.), and ditto root from 19 to 22 cents. per ½ kilo to 4*d.* per lb.). Manufacturers' bark sold at the f prices: Common chips and broken quills to fine str quill, from 4 to 126 cents. per ½ kilo. (= ¾*d.* to per lb.), and root at 22 to 94 cents. per ½ kilo. (1*s.* 5*d.* per lb.). Moderate competition prevailed, t buyers, named in order, being the Brunswick Quinine Zimmer & Co., of Frankfort-on-Main, and the Am Quinine Works.

DR. JOHN HEDLEY, of Middlesborough, points saccharin is not the unobjectionable thing that it is to be. A glycosuria patient of his took 12 to 15 do in place of sugar, and began to feel so much nausea was obliged to give it up. Everything that he put mouth acquired an intensely disagreeable sweet taste Dr. Hedley supposes, to undecomposed saccharin fi way to the saliva through the blood.

NEW AMALGAM PROCESS.—The process devised B. C. Molloy, M.P., for preventing the oxidation of during the working of gold is now in operation, and is a success. In working gold amalgamation of the metal with mercury is retarded, and in some cases pr by the mercury becoming covered with a film oxide. Mr. Molloy prevents the formation of this acting upon the metal with hydrogen gas, whereby quantity of hydrogen amalgam is formed which oxidise. The apparatus for accomplishing this cons shallow pan about one inch in depth and 41½ in diameter, which contains mercury about half an depth. In the centre of this pan is a porous jar, s and fixed that the mercury cannot enter or move it. this jar is a cylinder of lead and a solution of sulp soda. This lead cylinder, which constitutes the a connected with the positive pole of a small dynamo while the mercury is connected with the negative po same dynamo. When the current passes, oxygen is from the surface of the lead anode, while hydrogen is from the surface of the mercury, a portion of it form hydrogen amalgam. This action, which is apparent eye, is due to the decomposition of the electrolyte by the solution of the sulphate of soda. The proces far been quite successful, fully 10 per cent. more gol recovered owing to the mercury being "quick."

[emoranda for Correspondents.

ways send yo proper name and address: we do not publish them unless you wish.

rite on one si of the paper only; write early; and devote a separate sheet of paper to h query if you ask more than one, or if you are writing about other tters at the same time.

you send us n spapers, please mark what you wish us to read.

t us anything pharmaceutical interest: we shall do our best to reply.

ore writing formulæ consult the last volume, if you have it.

ters, queries c., not noticed in this issue will, if possible, be attended to next week.

Incorp ated Society of Chemists and Druggists (Limited).

SIR,—I n ice in your issue of February 18 a letter under e above h ding, and I have to thank you on behalf of the ociety for e note appended thereto, which puts the whole atter in a utshell. The letter in question would give the pression at Messrs. Beedzler & Co. were entirely unquainted ith the Society and myself. As a matter of fact, e gentlem who trades under that name called upon me me mont ago, and suggested that the Society should sist him i his action with reference to "Blood Mixture"; the ciety, ho ver, not having at that time been registered, I uld only omise, as I did, that the matter should not be st sight o

Your cor spondent does not mention that the circular in estion re rs to "proprietary rights claimed in the words Hop Bitte ' 'Blood Mixture,' *and similar titles.*"

I am no sufficiently acquainted with Messrs. Beedzler & .'s actio o speak with any authority on that subject, but ith regar o Mr. Beck's, it is mixed up with the question the sq e amber bottle, which is one of the principal ounds of mplaint in all the actions instituted by the Hop itters Co any (several of which I am defending).

It must well known to everybody acquainted with the w of tr e-marks that when same were in use prior to ugust, 18 , one, two, or even three individuals may estaish their ght to use such marks without rendering them ublic pro rty.

I may r r your readers to your advertisement columns r the na s of the present members of the council of the ociety, t number of which it has been resolved to inease.

So far f n the *raison d'être* of the Society being litigation, suggest , it is quite the reverse, as it will be no advange to th Society to advertise any particular member at the xpense o ts funds, and advertisement is generally *one, at ast*, of t objects sought in litigation of this description. The me bers, however, will be assisted and defended when antonly unfairly attacked, or where the questions at issue e of imp tance to the trade, and the council will be glad have a such cases brought to their notice. But where e confli ng interests are not absolutely irreconcileable the uncil w preferably endeavour to mediate between the rties, w h a view to the establishment of an amicable *odus viv di.*

I have e honour to be, sir, your most obedient servant,

Bo n House, CHAS. R. TAYLOR, M.A., LL.D.
3 and 64 ew Broad Street, E.C. Secretary (*pro tem.*) and
bruary 21. Solicitor.

Th Pharmaceutical Society Retrogressing.

SIR,—I m pleased to see Mr. Hampson has mentioned the ove fa and earnestly trust that some reform may be rthcom g which would induce those of us who have withawn to in the Society again. May I ask what advantage elongin o the Society brings us?

The in ease in the number of young members and decrease old on simply proves that *experientia docet.*

When I qualified I joined the Society, then when I went into business I continued my guinea subscription, for which I received the *Journal* weekly, which, of course, as a business man (which I trust I am), I did not consider sufficient return for my money, the first question in all such matters that I ask myself being, "Will it, or does it, pay?"

Now I am classed among the older members who have withdrawn, and my final reason is this. Reduction of prices was suggested in our town, and our local secretary called a meeting to consider this matter, and was actually in favour of it—in fact, advertised himself as selling at reduced prices for cash, and a discount off dispensing as well. Another instance will be remembered of a firm in a large town in the West of England. I do not mean to say the Society can help what each individual man does, or is responsible for his errors, but I merely point out what a farce our having a local secretary is if we cannot look to him to uphold the dignity of our business and endeavour to stamp out such a system of trading; but we never hear anything of them except when they call for subscriptions.

Let the Society point out the advantages of being among the brotherhood—show us why we should support it—what use our local secretaries are—what use our *Journal* is to the bulk of us, or tell us of any advantage we enjoy, and then those who have gone astray will, in all probability, come back to the fold. It is all very well to talk in high and mighty terms of science and the noble calling of a chemist, but some people seem to forget that the important question at issue is, "How can we live and make money?" We are traders, and, depend upon it, we have to fight the world openly, not with State protection as anticipated by some; then, I ask, why support a Society which has only power to regulate exams. and a few other minor details, take our fees, then leave us with very little more protection than the draper or grocer?

DOCENDO DISCIMUS.

Unscrupulous Uses of the Telephone.

SIR,—Messrs. Zimmerman have made a mistake in their dates, and, in consequence, our last letter should read "about one," not "before one," otherwise it applies to December 7.

Their first statement was that we telephoned once on the day in question, asking the price only; and a second time, ordering 3,000 oz. of quinine. We hold a letter from the secretary of the Telephone Company, which states we were connected with Messrs. Zimmerman "once only on the 7th," as stated by us, when we enquired the price. It is, therefore, clear that, as there was no second message, there was no order.

Messrs. Zimmerman's last letter is misleading. It tries now to connect the alleged order with the first message, but they have already stated that no order was given at this time, only an inquiry. They have ludicrously failed to find any trace whatever of a second message, or order, from us. Why do they decline our offer to forfeit 25*l.* to a trade charity, if they will come forward and disprove our statement, or substantiate their own, to the satisfaction of two independent gentlemen? Why decline to name a "disinterested person" who received the alleged second message? Cannot they find him? Why do they decline every inquiry? We know one reason—viz., because no order was sent from us, or received by them, as we stated in our first letter, not one word of which do we need to alter, withdraw, or qualify; and it is still quite clear that, but for the unexpected revelation of the Telephone Exchange, and the fortunate position of our telephone here, Messrs. Zimmerman's threats might have compelled us to take the quinine we never ordered. Uriah Heep said "any stratagem is fair in love." We hope Messrs Zimmerman do not think it is in business. Anyhow, they might as well have expected us to believe that upon leaving the Fatherland they "came, near 2 P.M.," to England through the Channel tunnel, and, when reminded that there is no connection by that route, state, "Oh! well, at all events, we asked the fare by the Dover boat at five minutes past one, which is just the same."

Yours truly.

Britannia Row, London, N. LORIMER & CO.
February 22.

[Messrs. Lorimer & Co. also send us a statement signed by ten members of their staff, who assert that the telephone is in their office, and all conversation through it is within their

hearing; and that there was no second connection with Messrs. Zimmerman on December 7 last, nor was any order given to them through that medium.]

Hazeline.

SIR,—Probably my experience of the properties of the "Distilled Preparation of Hamamelis" under very unpleasant circumstances may be interesting to some of your readers who have hitherto looked upon it as a fad of uncertain value.

About twelve one night the unwelcome bell summoned me to a man at the pharmacy door with hand bleeding very freely from an ugly glass-cut; he, returning to an underground kitchen after securing his area gate for the night, had trodden upon something slippery and stumbled, passing his hand through the window; after trying for some half hour to stop the hæmorrhage, he came with a daughter to get assistance. Had it been at a seasonable hour, or himself in a position to make a doctor's night-fee unimportant, I should have declined the responsibility and sent him at once to a surgeon. As it was, when but just seated and having the sodden rags removed, he showed symptoms of fainting, made more difficult by his daughter turning frightened. Fortunately hazeline was close at hand: pouring some into a mortar and saturating a large piece of lint, I wrapped it round the wounded parts, then turned my attention to loosening tie and collar, using smelling-salts, throwing open doors, &c. Upon again giving attention to the cuts, to my surprise the bleeding was so far under control that by the aid of Mead's plaster, he was made, if not comfortable, at least secure from fresh outbreak. Without the hazeline I firmly believe plastering would have been ineffectual, and he must have gone further for better help; another time a customer drew my attention to it for nasal hæmorrhage; she had had it prescribed for her most successfully by a medical man at Hastings. Yours truly,

Brighton, February 18. H. B.

The man's hand was useless for about a fortnight, which shows that he had come in for more than scratches.

Messrs. Burroughs, Wellcome & Co. ask us to state that they have received a letter from Mr. J. R. Hill, of Edinburgh, repudiating the unfavourable criticism of hazeline which he was alleged to have made at an evening meeting of the Pharmaceutical Society on January 18. The inaccurate report did not appear in this journal.

Irish Pharmacy.

SIR,—I am so satisfied that the interests of "chemists and druggists practising as such in 1875," and that of their assistants and apprentices, then and now, were taken care of in the Act under sections 31 and 32, that I will contribute 1*l.* to a fund to bring the question of the right of "Quid Pro Quo," or any other similarly circumstanced, to present himself for examination "at any such examination."

Of course the "regulations" have the force of the Act while they are unchallenged at law; but the Council must show that their regulations are "made under the authority of the Act," and nothing is plainer than that they have no power under the Act for regulations excluding any "person desirous of being registered as pharmaceutical chemist." The sooner this question is decided at law, the better for all interested.

AN 1875 C. & D. (3 52.)

The Pharmaceutical Coercion Bill.

1 58. *Lux* writes us a long letter entitled as above. He asks, first, whether it will be necessary, if the Bill should become law, for anyone presenting himself for the Minor in 1889, or up to 1893, to produce the certificates referred to. He says, "I have tried my best to obtain elucidation on this point, but my efforts have been worse than useless." If *Lux* had made an effort in what we should have thought would have been the most hopeful quarter, that is, by reading the Bill itself, he would have seen that it provides "that no such by-law shall come into operation prior to January 1, 1893." He objects to the Bill beause it str principle of self help, and becaus the Council trusted with such a "monstrous monopoly."

Dull Time

SIR,—The weather and the late payment of bills seem to have conspired with th season of Le trade dull. I write to suggest to y fellow ch this is a suitable time for looking ov old stock and proprietaries which are not ve saleable, a them (if in good condition) to be exchanged for g are readily saleable. I have often dne this, wit vantage to my stock. The wholesale uses have a ready to meet me, partly, perhaps, b ause my a worth having. In some cases I have dost the v revenue stamps, but I always consider hat the adv been on my side. I am, sir, faithfully your

SENEX.

[We may put in a word for the Exchange C through which surplus stock can oft be dispose readily than by any other means.]

Printing Presse

SIR,—A correspondent in your journ recently information *re* printing presses. I ve had on establishment several years which I ha found mos and simple in use, and shall be pleased furnish a gist with information on their choice d use I no adjunct to a drug business more ser eable than printing press; mine has repaid its cos wer and ov

Yours sincerely,

Gorleston, Great Yarmouth. W. H

Tinctura Strychninæ Nitrati (Dr. Kidd)

SIR,—The tinct. nit. strychninæ prescbed by Dr. made by dissolving 1 part of strychnin nit. in 200 vini rect. PROS B H. MAR

Manchester, February 13.

Mr. N. H. Lumbus (Walsall) sends th following formula for this tincture, and another f tinct. str phosph.

Strychninæ pur...	gr. xxxv.
Aquæ dest.	xxv.
Acid. nitric. fort.	ii.
Spt. vini rect.	xj-5j.

Dose: 2 or 3 drops in 1 oz. of water.

Tinct. Strychninæ Phosph. (1-20, Kidd

Strychninæ pur.	gr. xvi.
Spirit. vini rect.	℥j.
Acid. phosph. dil. (B.P.)	℥ss.

Dose: As above.

We have also received the following mula f Kidd himself:—

Tinct. Strych. Nit, 1-200.

Strychnin. puræ	gr. v.
Acid. nitric. fort.	℥ss.
Aquæ dest.	℥ss.
Sp. vini rect.	℥xl.

Tinct. Strych. Phos., 1-200.

Strychnin. puræ	gr. v.
Acid. phosph. dil. P.B.	℥xx.
Sp. vini rect.	℥xl.

Poison or Beverage?

SIR,—"C. E. T. S." (of course these initi are looks on the beer question from his point f vie strictly, a "poison" it is not, nor cannot be— artic millions drink as their daily beverage, finding he be action of it. Let the water-drinking comm ity f

ves specimens of excess in water-drinking, ll be found that a bad effect is thus produced many cases. W. B.

thenware or Porcelain Basins.

feel grateful if any reader of your journal ere I can obtain earthenware or porcelain re illustrated in Maw's list, figs. 33 and 35, illustrations), out of which it is possible to illing if the vessel be anything above half en engaged in this business in various places five years, and, except in one instance, when nt in a first-rate establishment in Liverpool, any time seen one of these basins made with was possible to pour from, especially if the e, as we used to hear them called, was nearly

Yours, &c.,

ry 16. TORTI COLLIS. (1/57.)

Ammon. Monocarb. Odorif.

erience of this article is that it is not worth bottles with small pieces of ammon. carb. owder), and then moisten with perfumed liq. Customers tell me that my smelling-salts last er people's.

old times" we often had to fill up a 4 or tle, for which we charged 2*s.* 6*d.* In these bottles are rarely used. Yours truly,

HEDER.

Morphia-taking.

or me time past a customer of mine has been in of king 32 grains of morphia daily, which appears re effect on him than water. In addition he out drachms of chloral. I should like to know my brother-chemists if they have had similar hia-taking. My customer appears to enjoy nd frequently takes a day's hunting, and is that I have made up for him, since January 1, bottles of solution of morphia, each containing h. mur.

dispensed this morphia prescription I objected nt repeats without some authority from a and I soon received written authority from a tioner to supply Mr. —— with morphia as

I am, sir, yours faithfully,

H. E. A. (1/65.)

The Sale of Poisons.

—"Poison," in his letter which appears in your issue 3, speaks as though all the people who commit sed their drugs from unqualified men. May n out of every twelve do not get them from ists' shops? and perhaps "Poison" can tell y people die from taking patent medicines. prentices or unqualified assistants know of it comes to the test, neither apprentices nor ht to be permitted to sell poisons. In this chemist's shop that is managed for days by who has only been in the trade twelve months, ct "Poison" names came in force, there would y suicides.

Yours truly,

DRUGS. (5/48.)

LEGAL QUERIES.

/260. —The label would no doubt render the pre- le, as it states that the wine is "a valuable digestion."

/260. *spirant.*—Patent-medicine licences are transfer- uld be endorsed by the Excise Office.

/260. *V. M.*—Keeping a qualified assistant will cer- title anyone in Ireland not otherwise entitled to sell poisons or compound prescriptions. The offender is the person who keeps the open shop for doing these acts.

1/35. *W. H.* asks:—"How long may an unqualified man manage a widow's business?" The widow, if carrying on the business as executrix of the estate of a deceased chemist, must employ a qualified assistant to manage the business.

57/258. *Dum Spiro Spero* asks whether the youths who go about the streets with 1*d.* boxes of ointment, &c., require a hawker's licence, or do the proprietors require to hold one? Certainly not, unless he travels about with one or more horses. It might be possible to require the youths to get a pedlar's (police) certificate, but they are certainly not the class of people aimed at by the Act.

3/51. *Chemicus.*—The widow of a person who was not a registered chemist cannot legally sell any of the scheduled poisons. Only the Pharmaceutical Council can prosecute her for this infringement of the Pharmacy Act.

3/47. *H. G.*—Your label is on the borderland. You had better send two copies of it to the Commissioners of Inland Revenue, Somerset House, to ascertain whether it renders the preparation liable or not. When you get their answer kindly inform us of the result.

3/53. *Chemicus* (Belfast).—There has been an Apothecaries Act (England) in force since 1815, but it did not have by any means the same effect as the Irish Apothecaries Act. The president is perfectly correct if he says "that Irish chemists and druggists, previous to the passing of the Irish Pharmacy Act, were not in the same position as English chemists and druggists previous to the passing of the British Pharmacy Act, in regard to the dispensing of medical prescriptions."

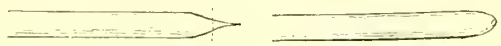
5/15. *Creta.*—Patent medicines, even though they contain a poison as one of the ingredients, may be sold by unregistered persons. We do not know the firm you name.

DISPENSING NOTES.

[*The opinions of practical readers are invited on subjects discussed under this heading.*]

A Suggestion for Bougie Moulds.

SIR,—Moulds for making urethral bougies are not yet considered as necessary implements in all "well-regulated pharmacies," yet sometimes a prescription is presented requiring some of these articles to be made, and we have to resort to tinfoil. Generally an elastic-gum bougie is taken as a model on which to wrap the tinfoil; but the bougie being of the same thickness nearly all its length, there is considerable difficulty in drawing off the mould from the model. Often when we have succeeded in doing this we find that the bougie has acted as a piston and drawn the sides of the mould together, rendering it useless. This trouble may be obviated by using a piece of glass tubing same size as a No. 8 bougie. First draw out the end to a point and cut it off about an eighth of an inch from where the narrowing begins, then fuse again until the end is rounded



off as the bougie is to be, taking care not to allow the aperture to close. This tube now forms the model upon which to shape the tinfoil moulds. The tinfoil slips more easily from the glass than from elastic gum, and the little hole at the apex allows air to enter as the tube is withdrawn.

Yours truly,

Southport. S. J. ELLIOT.

Ferri Sulph. Exsic. in Pilulâ.

SIR,—Permit me to say that simple syrup (used carefully) makes a splendid pill, as hard as a stone but very soluble. This excipient has not the disadvantages of the one you suggest. Yours faithfully,

Kilburn, N.W., February 18. W. M. BELL.

Tolu Balsam in an Ointment.

SIR,—In dispensing the following I cannot get the bals. tolu to combine fairly. Can you suggest a method by which a smooth uniform ointment can be formed.

Bals. tolu	ʒij.
Tinct. cantbar.	ʒiss.
Ol. tiglii	gtt. iv.
„ rosmar.	gtt. xx.
„ ricini	℥ss.
Vaselin. ad	℥ij.

Yours truly,
IGNORAMUS. (2/58.)

[The whole of the balsam cannot be made to dissolve in the vaseline and castor oil, and it is questionable if this is intended. Digest the balsam in the vaseline and castor oil, heated together, for ten minutes, then strain through muslin. Stir until nearly cold, and add the other ingredients]

Tinct. Nuc. Vom. in Mixtures.

SIR,—On reading your note on "A Question of Colour," it occurred to me that I have never seen a recommendation that a "shake the bottle" label should be used on mixtures containing the above. It is my usual practice to do so. Do you think it necessary? Yours truly,
HEDER. (3/69.)

Terebene Inhalation.

SIR,—Will you kindly inform me through your columns *re* the following prescription:—

Terebene puri (Burroughs')	♏ xl.
Mag. carb. lev.	gr. xxx.
Aq. dest.	℥j.

Ft. inhalatio, &c.

Should it be filtered or not?

Yours faithfully,
REMUS. (4/54.)

94 Seaside Road, Eastbourne, February 21.

[The prescription is to be dispensed as written, without filtration. Many of the inhalations of the Throat Hospital Pharmacopœia are made in this manner.]

A Bismuth Mixture.

SIR,—Should the following prescription turn black and have a disagreeable taste after standing forty-eight hours, the patient having taken two or three doses? if so, why?—

Liq. bismuthi	℥j.
Acid. hydrocyanic. dil.	♏xl.
Glycerini	ʒiij.
Inf. gentian. co. ad	℥viij.

M. ½ t. d. s.

Believe me, yours truly,
STUDENT. (260/38.)

A Question of Compatibility.

SIR,—Is the following mixture compatible? If so, how can it be prepared so that no sediment will result after standing for a few days?—

Potass. iodid.	ʒiss.
Tr. ferri perchlor.	♏ss.
Aquæ ad	℥vj.

M. et s.

I am, yours respectfully,
CAMPHOR. (4/14)

An Emulsion Query.

A Dispenser (4/37) would like to know th best way to dispense the following so as to send it out miscible as possible:—

Liq. ammoniæ fort.	ʒiv.
Ol. amygdal.	ʒiij.
Tinct. cantbar.	ʒij.
Aq. rosmarini ad	℥viij.

M.

Quinine and Dialysed Iron.

SIR,—Can the following prescription be prep ed so as to have the quinine in solution?—

Liq. ferri dialysat.	iij.
Quininæ sulph.	r. xv.
Liq. arsenicalis	j.
Ess. menth. pip.	♏xij.
Aquæ ad	℥j.

M.

Yours truly,
N. L. (4/3.)

4/6. *Silver King.*—By Compound Petrole Mass we presume that kaolin ointment is meant. This is mposed of equal parts of hard paraffin, vaseline, and kaoli The addition of tragacanth mucilage to aqueous mixture containing bismuth subnitrate is advisable in the interests o he patient. You should, of course, indicate on the prescrip that the addition has been made.

Naphthaline in a Mixture.

SIR,—Can you or any of the readers of THE C MIST AND DRUGGIST suggest a way to make the followi prescription into a presentable mixture?—

Naphthalin	
S. V. R.	
Spt. chloroform.	
Aquæ cinnamomi ad	ij.

j. ter. in die.

Yours truly,
APPRENTIC (1/14.)

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for for læ which have already been published in this journal It is not fair to more careful readers that we shoul requently repeat such information, and so long as the b numbers containing the formulæ, or replies required, a in print we must decline to do so. Back numbers from rch 1886 onward can be obtained from the publisher at each.

In accordance with the foregoing rule, the fol ving are references to special subjects regarding which e correspondents named desire information:—

Hair Restorer (lead, sulphur, &c.), for lea ette see July 2, 1887, page 17; also May 21, 1887, page 6 (1/10. *A Subscriber's Assistant.*)

A Custard-powder Formula was given Janua 15, 1887, page 86. (1/35. *W. H. T.*)

Elixir of Saccharin.—Mr. Martindale's formu will be found on page 652 of November 19, 1887. (260/64. *W. R. F.*)

Varnish for Patent-leather Boots.—A fo la was given in our issue of September 24, 1887, page 409 (256/62. *A. N.*)

Depilatories.—Three different formulæ will b ound in last volume, July 2, page 30, October 29, page 51, and November 12, page 628. (259/31. *Hirsutus.*)

Liquor Pepsinæ.—See issue of January 21, 188 age 60. (2/25. *Pepsine.*)

157/. *Pasco.* — **Black Oils.** — The following is the formula for

OLEUM NIGRUM, P.L.

Oil of turpentine	1 pint
Rape oil	3 pints
Oil of vitriol	¼ lb.

Agitate well together with care, then add

Barbados tar	3 oz.

Again agitate well, and in 10 days decant the clear portion.

Linseed oil is frequently used instead of rape oil, and appears to give a better product.

157/. *A Subscriber* (Appledore). — **Mel Rosæ.** — Red rose petals (dried), 4 oz.; boiling water, 16 oz. Macerate for two hours, press, and strain. Again macerate for a short time in 3 oz. of boiling water, press, and strain. Mix the infusions, add 5 lbs. of honey, and evaporate to a proper consistence.

AQUA MELLIS.

Ol. caryophylli	ʒiiss.
Ol. bergamot.	ʒx.
Ol. lavandulæ ang.	ʒiiss.
Moschi	gr. iv.
Ol. santal. flav.	♏xv.
Spt. vini rectificat.	℥xxxij.
Aq. rosæ	℥viij.
Aq. flor. aurantii	℥viij.
Mellis opt. ang.	℥ij.

Macerate the whole for at least 3 weeks, agitating occasionally. Allow to settle, decant, and filter if necessary.

254/. *Beta* (Ceylon).—(1.) Filtration through felt bags is the best way To **Clear Fresh Lemon-juice.** It should previously be agitated with 5 per cent. of washed kaoline. Alcohol in the proportion of 5 per cent. greatly assists in the precipitation of the mucilage. (2.) We shall inquire. (3.) You will find Gaskell, Deacon & Co.'s crystal carbonate of soda the most satisfactory. It is remarkably pure, contains but a small percentage of water of crystallisation, and, not being bulky, is specially suited for exportation. (4.) Spun glass, Glass Wool, is much used for the filtration of acid and other corrosive liquids.

256/. *Lactis.*—**Blanc Mange Powder** consists of corn starch (Oswego cornflour) flavoured with lemon. Vanilla is the flavour used for chocolate. We do not have a formula for coffee flavour, but the following is one for **Coffee Syrup,** as used in the United States :—

Coffee, roasted and ground	8 oz.
Boiling water	5 pints

Infuse, and filter ½ gallon, in which dissolve—

Granulated sugar	7 lbs.

252/. *Clevedon.*—(1) The colouration is most probably due to oxidation of the iron salt, and cannot be removed by filtration through charcoal, which would only tend to remove alkali. You should communicate with the manufacturer. (2) The **Medical Curriculum** extends over a period of not less than forty-five months. In London the cheapest licence is that of the Apothecaries' Hall, which costs 10*l.* 10*s.* for examination fees, and the education required will cost from 100*l.* 150*l.* The lowest estimated cost of the whole four years including books, board and lodging, &c., is about 380*l.* You will find full particulars about the matter in our Educational number (September 17, 1887). See article in this issue on the Preliminary examination.

Humber, Jun.—The opsiometer (which you will find noticed in this journal, November 12, 1887) would fulfil your requirements to a great extent. We would also recommend you to get a little 1*s.* book, published by Ward & Lock, on "Eyesight and How to Take Care of it." An article on "The Spectacle Trade," published in THE CHEMISTS' AND DRUGGISTS' DIARY, 1882, gives the necessary elementary instruction for the optical business.

257/1. *E. A. H.*—**Chrysophanic Acid Stains.**—These are somewhat difficult to remove from linen, chlorinated lime alone often proving ineffectual, probably owing to the fact that the fatty basis with which the drug has been combined has not been removed from the linen. First treat with benzine, as in removing an oil stain. This remove the fat and part of the drug. When dry wash the spots with solution of chlorinated lime until the stain disappears. If the chlorinated lime is not effectual, use soda solution, water, and solution of chlorinated lime alternately.

Camphor (256/49) and *Nemo* (260/39).—Salicylic acid is regarded as the best preservative for **Cocaine Solutions,** but one of our correspondents has spoken highly of thymol in the proportion of 1 in 1,000. This appears to be as effectual a preservative as any that have been proposed.

257/14. Nature is bountiful in spreading her colours, but occasionally she lays in the reds in utter disregard to the feelings of some persons. Abstainers have cause to complain in this respect. *Tonic* tells us of one victim whose face belies his profession, and an eradicator is required. The case is a long-standing one apparently, but "Tonic" shows his eagerness to get a remedy by withholding his name and address, which we require, even for a red nose, as a guarantee of good faith, *ergo*, that he is a subscriber.

257/72. *H. J. H.*—Hager gives the following formula for **Elliman's Royal Embrocation,** but we question its correctness and practicability :—

	Parts
White of egg	2
Turpentine	8
Crude acetic acid	50
Water	50
Methylated spirit	60

Mix.

See an article in our 30th volume, page 446, on "White Oils."

258/50. *Effectual.*—**For Ringworm in Cattle and Pigs,** the most successful remedies are ung. hydrarg. biniodidi and a solution of carbolic acid, 1 in 18 of a mixture of glycerine and methylated spirit, equal parts.

255/64. **Dextrin,** if properly made into mucilage, should have no taste, and the smell should be far from obnoxious. Try the effect of a trace of ammonia upon it.

259/41. *Festina Lente.*—The following formulæ for soap-powders are fairly representative :—

BORAX SOAP-POWDER.

	Parts
Curd soap	5
Soda ash	3
Silicate of soda	2
Borax	1

Mix.

LONDON SOAP-POWDER.

	Parts
Yellow soap	6
Soda crystals	3
Pearl ash	1½
Sulphate of soda	1½
Palm oil	1

Mix, spread out to dry, and powder.

Look before you Leap is a saying which is applicable to some correspondents. 260/27. *A Subscriber* (London) will find his query answered January 14, page 60. 260/11. *Bringer* (Newcastle). — Consult last volume, page 655. 256/9.—*Restorer* will find several formulæ for hair-dye in the same volume. We presented every subscriber with an index on December 31, 1887.

260/53. *Pertussis.*—The paragraph regarding whooping-cough referred to the necessity for the fumigation or disinfection of the rooms with sulphur.

3/70. *McDade.*—You will find some valuable information respecting pharmacy in South Africa in THE CHEMIST AND DRUGGIST of October 15, 1885. The English certificate is accepted by the Medical Boards of the South African colonies (who have charge of the Colonial examinations in pharmacy), a fee having to be paid in addition. It is impossible for us to tell you where is the best opening.

3/68. *J. H. E.* (Canada).—Yours is the only complaint we have received this year of a duty on the Diary being charged by the Customs Officers. We believe the law allows the imposition of a duty on books. How long will you Canadians continue to cramp yourselves by such taxation?

259/22. *J. Brown.*—To remove **Crocus of Antimony** stains from a mortar, wash thoroughly with a hot solution of caustic soda, and if this does not remove the stains entirely finish with acid. hydrochlor. 2 parts, and acid. nitric 1 part.

250/30. Horse castor oil is coarse castor oil.

259/72. *Pax; Paris.*—Bolletino Farmaceutico, Rome; Pharmaceutische Post, I. Kolowratring 9, Vienna; Pharmaceutische Rundschau, Brenntegasse 13, II. Prague (Austria); Droguisten Zeitung Ober Gerspitz, Brünn (Austria); Pharmaceutische Zeitung 3, Monbyouplatz, Berlin; Farmacia Española, Noblejas 5 Bajo, Madrid; Semanario Farmaceutico, Madrid; Restaurador Farmaceutico, C. Baja de San Pedro, Barcelona.

3/58. *Himalaya Mountains.*—You will find the formula for bromidia on page 452 of vol. xxx., "152" being a misprint.

3/34. *Eos.*—We must refer you or your agent to the Patent Office for information regarding any particular patent.

259/27. *Amerik.*—For colouring glycerine jelly, cochineal solution and saffron are the most brilliant.

2/52. *Wales.*—If you omit rectified spirit from any liquid preparation of drugs you must replace it with glycerine, salicylic acid, or any other effective preservative; 3 oz. of glycerine and half a drachm of salicylic acid to the pint are likely to serve the purpose.

A Mechanical Telephone can be made from a piece of thin but strong twine, to each end of which is attached a 2-oz. pill-box.

3/58. **A Voice from India**, viz., a subscriber signing himself *Himalaya Mountains*, writes, under date January 31, 1888:—"THE CHEMIST AND DRUGGIST is such a boon to us chemists away up here, 8,000 feet above sea-level, that each and everyone of us should give a helping hand to keep it what it is—'the chemist's companion and adviser.'"

Soda Carb.—The **Sticking of Metallic Capsules** is due to the oil which is used in the process of manufacture, which, when the capsules have been laid by for some time, becomes gummy. The only way to overcome this difficulty is to pay a small sum extra to have slips of paper placed between each one, as in coloured capsules. You can sometimes separate them by taking a roll of, say, one hundred capsules, and by rolling them backwards and forwards a few times on a smooth surface it parts them.

2/65. *J. H. D.*—We have not the address of the paper you mention, nor have we seen it for some years.

260/68. *W. Withers.*—(1) The fever pow s which yo mention have as good a composition as c d be wished (2) **Soothing Syrup.**—A safe preparation f infants ma be made as follows:—Dissolve 2 drachms bromide o ammonium in 1 oz of water, and 15 drops of l of anise i 2 drachms of spirit of chloroform and 6 drac s of rectifie spirit. Pour into 15 oz. of hot simple syrup nd make u to a pint with syrupus rhœados. Dose: a t spoonful an under. **Chlorodyne.**—We published one form in our issu of January 29, 1887, page 130, and another our issue o July 16, page 81. **Tonic for Hot Climates** The formula given in reply to "Saccharine" would suit yo

4/15. *J. B.*—**Tartaraline** is acid sulph of potash. Three parts of it are equal in saturating pow to about two parts of cream of tartar. The makers, ho ver, sell it diluted with starch to the strength of cream o artar.

4/43. *Soda and Acid.*—To make a cheap B ing-powder you must use a cheap substitute for tartaric cid, such as tartaraline. See foregoing note.

3/73. *Arbaces.*—The glass tablets were rec mended for such cases as yours.

3/72. *P. H.*—**Mice Poison.**—Suitable prop tions are:—

Strychnine	drachm
Arsenic	"
Sugar of milk	"
Prussian blue	(to colour)
Oil of anise	rops

Mix.

260/46. *A. H. Adams.*—The crystals cont ed in the sample of **Chestnut Hair-dye** are not a materi constituent of the dye, but have been formed through the tion of the free alkali upon the glass. Similar crystals a frequently found in liq. potassæ bottles. You will find t following formula to make a similar preparation:—

Nitrate of silver	30 gr
Nitrate of copper	5
Solution of ammonia	q.s.
Water to	4 oz.

Dissolve the salts in an oz. of water and add ammonia u the precipitate formed is re-dissolved. Then make up to 4 oz. with ater. To be used with a solution of pyrogallic acid.

252/57. *J. C. T. Day.*—**Artificial Ice.**—The p cess which you refer to is doubtless that in which solution ammonia is used as the refrigerating agent. There are t processes in which this is used, viz., the absorption proc and the compression process. In the first of these ord ry liquor ammoniæ, sp. gr. ·880, is introduced into a vess heated by means of steam, and a mixed vapour of ammoni nd water is driven off. This mixed vapour is then passed to a cooling vessel, where, owing to the difference betwee he boiling points of water and ammonia, fractional conden ion takes place, the bulk of the water, which condenses st, being caught and run back to the generator, while the monia in a nearly anhydrous state is condensed and colle d in the lower part of the vessel. This ammonia is s equently evaporated, and the heat necessary for evaporati is withdrawn from the water, which it is desired to fre , so that ice is formed. The compression process depend pon the same principle, only in this case the anhydrous monia is obtained by pressure.

260/69. *Quere.*—If you refer to your text-book botany you will get all the information you desire regardin aphides. The fluid grain of the Pharmacopœia is simply a lume of water weighing 1 grain—that is, a little more tha minim.

4/8. *A. L.*—If it is black and brown *hair* dye ich you require, but do not explicitly mention, please refer the last volume.

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Ground from Screened Seed.

Pure Yellow Beeswax, in ars.
M.P. 149° F.

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For flavouring Aërated Waters.

Emulsified Cod Liver Oil.
SEASON 1888.
With Hypophosphite of Lime.

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A pure Hydro-Carbon Ointment Basis

Levigated Ointmen
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CRETA PRÆCIP. Very White, Soft, and Light.
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„ SALICYLIC (Kolbe's)	White, powder, crystallised and dialysed	Dissolves colourless in wat or alcoho purest for medicine.
„ TANNIC	Lightest crystals	Dissolves almost colourless in water, alcoh and ether.
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CELLOIDINE (Patent)	Gelatine plates...	Purest Pyroxylin; inexplosive.
CHLORAL HYDRATE	White cake and crystal	See Liebreich's, below.
CHLORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
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SODA SALICYLATE, and other Salicylates	White powder and crystals	Freely soluble in water and alc l.

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ERGOTINE, pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter ent in th ordinary Ergotine and extract
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Ammonium Bromide	5/6 lb.
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Cocaine, various strengths, from	14/ „
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Potassium Chlorate	at 2/
Kinds marked thus *	3/
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Dr. J. COLLIS BROWNE'S

CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

om Lrd Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD, and the LORDS JUSTICES OF APPEAL.

VICE-CANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that . J. Colli Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as berately rue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VI -CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the rt would ve given Dr. Browne protection.'

LORD CANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that applicati been made at a proper time and place, the Court would have found means to restrain the Defendant from misre- enting th ecision of the Vice-Chancellor.'

LORD STICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepre- ation of decision of Vice-Chancellor Wood.'

It was ved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 5, speaki of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never 1 any ot , that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant lishes th aid testimonial as referring to his medicine.

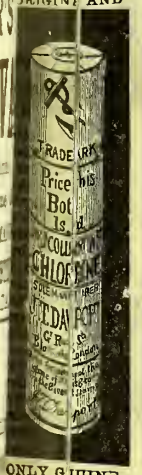
The Ed r of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne rred to the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published he Defe nt as testimony to his medicine.

Numer affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the entor of lorodyne, and that when prescribing they mean no other.

The De dant himself publishes that his compound is in effect and composition quite different to any other preparation; ertheless assumes the name, testimonials, &c., of Chlorodyne.

Technic ties in law prevent that protection which the public should justly have against such a course of conduct. It is now mbent all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the vernment amp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts nalysis ve failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



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The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

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Allen, Hanbury & Co.,	"
Baiss Brothers,	"
Banks & Richards,	Birmingham
Barron, Harvey & Co.,	London
Bell, John, & Co.,	"
Bourne & Taylor,	"
Corbyn & Co.,	"
Cox & Gould,	"
Curling & Co.,	"
Curtis & Co.,	"
Davy, M'Murdo & Co..	"
Dobbin, W., & Co., Limited	Belfast
Drew, Barron & Co.,	London
Drew, B., & Alexander,	"
Dunn & Company,	"
Edwards, W.,	"
Evans, Gadd & Co.,	Exeter
Evans, Lescher & Webb,	London
Ferris & Co.,	Bristol
Foulger, S., & Son,	London
Frazer & Green,	Glasgow
Gale & Co.,	London
Giles & Son,	Clifton
Goulding, Messrs,	Cork
Gratton & Co.,	Belfast
Grimwade, Ridley,	London
Grindley & Son,	Chester
Hearon, Squire & Francis,	London
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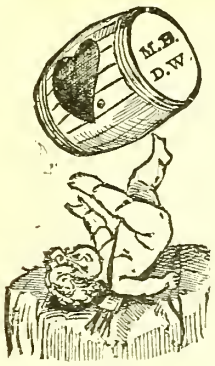

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2/9 Ditto ditto	21/8	4/6.. „ Raquin	36/	11/..Laville's Gout Tincture	91/10	2/9.. „	2
2/9..Anbergier's Syrup	26/3	4/6.. „ Mathey Caylus	27/	11/.. „ „ Pills	91/10	4/0..Racahout	
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4/6..Blancard's Pills	32/5	2/6..Espic's Cigarettes	13/6	1/9.. „ de Berthé	15/4	2/9..Vallet's Pills	
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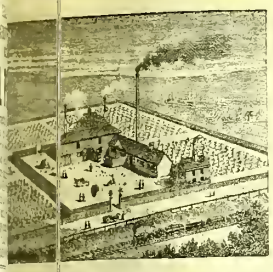

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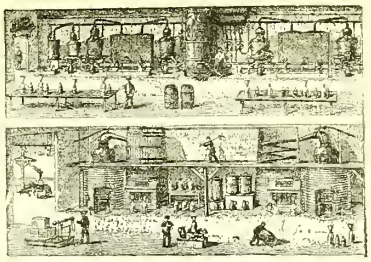

hose w have to buy and use the above Oils ought to take every care to get the same from the Growers and Distillers t, guaranteed pure, as these Oils are very often adulterated to a great extent. We advise, for this reason, buyers to ask for Jalon's Brand, as their Oils are all grown in the district of Mitcham, and they are **Guaranteed Pure.**

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GUARANTEED ABSOLUTELY PURE AND UNADULTERATED.

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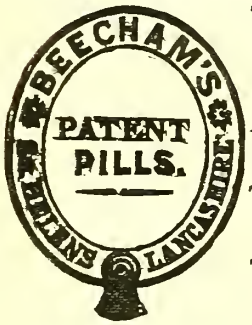

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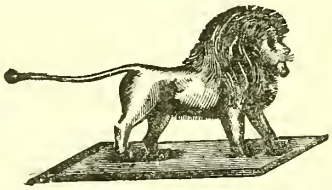
STEPHEN GREEN, 210 Lambeth Road, LON ON, S.E.

TRADE MARK REGISTERED OVER ALL THE GLOBE.



E. BURGESS
LION OINTMENT AND PILLS

Cure the worst and most obstinate cases of Ulcers, Abscesses, Cancers umours, Poly Carbuncles, Piles, Poisoned Wounds of all kinds (including Dog a Venomo bites), and every form of Eruption and Skin Disease; also Ulcerat and Cancero Affections peculiar to Females, without the aid of Lancet o nife.

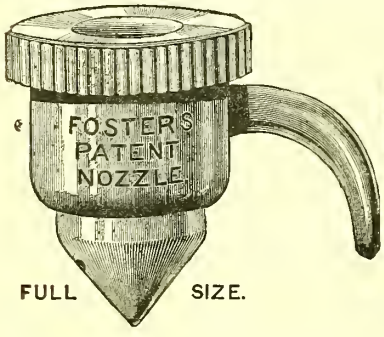
Numbers have been cured after leaving various London Hospitals as incurable, or curable only b mputatio

Photographs of Cases Cured, neatly framed for exhibition, Transparencies, Bills with Name, &c., forwarded direct or through any holesale Hou Plenty of Advertising Matter supplied to Chemists willing to push the sale.

SPECIAL NOTICE TO AUSTRALIAN CHEMISTS.—Messrs. Lynch & Co., of Melbourne, h e in stoc a supply of these remedies, one box of which will ensure a sale by proof of effica y.

The Ointment is put up in air-tight grease-proof boxes, and will keep good any length of time in any climate. The Pills are in stout ben boxes, a also retain their virtue for years. **Prices, 1s. 1½d., 2s. 9d., 4s. 6d., 11s., and 22s each. Usual Wholesal Terms.**

E. BURGESS, 117 High Holborn, and Kingsgate Street, LONDO , W.C



FULL SIZE.

FIRE!! FIRE!!
FOSTER'S PATENT NOZZL

For Converting Syphon Bottles immediately into

FIRE EXTINCTEUIS.

In Fancy Boxes containing 1 doz. Nozzles, 18/ each. Trade Discount, ⅓ per ce

Handsome Showcard and Handbills given gratuitously.

Every room in every house should have a Syphon Bottle fitted with a No , ready immediate use. It forms the Simplest and most Reliable Fire Extincteur r invent

Price 1s. 6d. each.

BARNETT & FOSTER, Manuf turer
"Niagara Works," 26T Eagle Wharf Road, LONDO N.

NELL'S
PURE CRUSHED LINSEED

Linseed of the very finest quality only used, and sold at lowest wholesale prices.

For Samples and Quotations write to **R. J. NELL**

SEED CRUSHING MILLS,

LOUTH, LINCOLNSHIRE

YOUNG & POSTANS. BISMUTH, PEPSINE & STEEL

GRAN. EFFER. BISMUTH, AND PEPSINE
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GRAN. EFFER. IRON, QUININE AND PEPSINE

Now prepared only by **CURTIS & COMPANY**, 48 Baker Street, Portman Square, LONDON, W.

HEADQUARTERS FOR TOILET FIXTURES & ROLLS.

SIMPLE PATENT.
9/ doz.
Complete with roll.

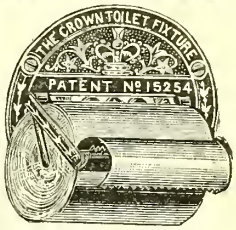
GREAT REDUCTION IN PRICE OF ROLLS.

1st QUALITY.

5s. 6d. dozen, or 63s. per case of 1 gross.
A first-class paper, soft and yet tough.

2nd QUALITY.

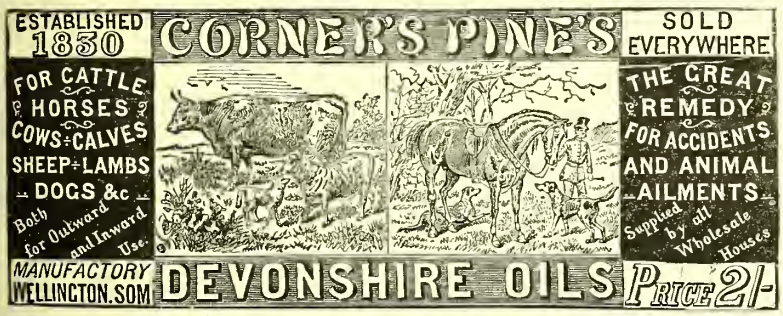
4s. 6d. dozen, or 100s. per case of 2 gross.
Splendid value.



THE CROWN PATENT.
Bronze, 15/ dozen.
Nickel, 18/ dozen.
Complete with roll.

JOHN S. DOWNING, Commercial Street, BIRMINGHAM. 73 Virginia Street, GLASGOW. | London Agency— 9 Rose Street, E.C.

HUSK & COUGH
LAMBS & CALVES
CURED BY
THE DEVONSHIRE
COMPOUND.
Distinct preparation of the Devonshire Oils, announced to be a foreign remedy which fails to cure this deadly disease.
Bottles 2/-



CORNER'S FAMILY EMBROCATION SHOULD BE USED ON THE CHEST FOR MEASLES.
Cures Sore Throats, Colds, and Pains in the Chest, Rheumatism, Lumbago, Scalds, Burns, Chilblains, Sprains, &c., &c.
1s. 1½d.
SEE THOUSANDS OF TESTIMONIALS

REGISTERED TRADE MARK, "DEVONSHIRE." BEWARE OF FRAUDULENT IMITATIONS.

DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS

BARRON, SQUIRE & CO.

(LATE DREW, BARRON, & CO.),

WHOLESALE & EXPORT DRUGGISTS,

BUSH LANE, LONDON, E.C.,

MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS,

Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive careful attention and prompt execution.

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to their having PURCHASED THE BUSINESS of Messrs. JAMES BASS & SONS, Hatton Garden, and with it the various Formulæ from which their Special Preparations have been made, and pledge themselves to supply them with all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

SEE INDEX TO ADVERTISEMENTS—Pages 27-29.

CARBOLIC POWDER, £4 TON.

1-ton lots and upwards.

CARBOLIC PINK POWDER, 5/-, 7/6, and 10/- PER CWT., in bags or casks.

HANDSOME LARGE DECORATED BLACK AND GOLD TIN BOXES.

Size 7½ ins. by 3 ins. diameter, holding 1½ lbs. (usual 1/- size), 3/- dozen.

Ditto, **LARGE SIZE,** holding about double quantity, 4/6 dozen.

PALE CARBOLIC ACID, 99 per cent. strength (No. 5) below market price.

CRUDE CARBOLIC ACID (Brown), 9d., 1/-, and 1/6 Gallon; also in patent stoppered bottles labelled, ½ pint (1/- size), 4/- dozen.

DARK SANITARY FLUID (to be used with 80 parts of water, making a *milky fluid*), **2/6** PER GAL.

10 PER CENT. DISCOUNT OFF ABOVE PRICES FOR CASH WITH ORDER.

All goods delivered free in London or suburbs, or to rail or docks. THE CHEAPEST HOUSE IN THE TRADE.

HAMILTON & CO., 118 HIGH ST., WANDSWORTH, LONDON, S.W.

HENRY AYSCOUGH THOMPSON & SON,

WHOLESALE AND EXPORT DRUGGISTS,

22 WORSHIP STREET, FINSBURY SQUARE, LONDON.

LIQUOR SENNÆ DULC. (MOIR'S)

LIQUOR RHEI DULC. (MOIR'S).

(SOLE MAKERS OF THESE PREPARATIONS.)

CONCENTRATED INFUSIONS, DECOCTIONS, &c.

These Preparations are extensively used abroad, as they will keep good in any climate.

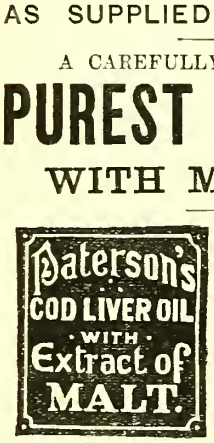
PRICE LISTS ON APPLICATION.

AS SUPPLIED TO THE INFIRMARIES

A CAREFULLY PREPARED EMULSION OF

PUREST COD LIVER OIL

WITH MALT EXTRACT.



Pronounced by leading Physicians to be the most valuable form of Cod Liver Oil ever produced. It is pleasant to take, and has no fishy smell or taste. There is no nausea experienced, and it is greatly relished by Children and Invalids.

This valuable combination forms a

HIGHLY NUTRITIOUS FOOD.

It is many times more strengthening than any other form of Cod Liver Oil, and is simply invaluable for bringing the system up to par in all cases of Consumption and Wasting Diseases and General Debility.

The moderate price—

1s. 6d., 2s., and 3s. per Bottle,

brings it within the reach of all.

GUARANTEED PURE.

PATERSON'S MANUFACTURING CO., LIM.

Manufacturing Chemists,

GLASGOW and LONDON.

Head Office: 12 BROOMIELAW, GLASGOW.

56

HAWLEY'S

RED BARK BITTERS

From the best Indian Red Cinchona Bark, flavoured

In tall hock-shaped, white glass bottles, capsuled. Two sizes. Handsome coloured label in the front. Plain label with directions on the back.

For full particulars of price, &c., see Hawley's Illustrated List of Counter Adjuncts, to be had on application.

SAVARS'

COCA WINE

Introduced to the Trade in 1875.

CAN BE RETAILED WITHOUT A WINE LICENCE.

This Wine is made from selected Green Leaves, and contains all the active ingredients of the plant, the Cocaine and the Ozonine being both held in solution.

In 6/0 Bottles (2,000 Leaves) 57 dozen.
In 3/6 „ (1,000 „) 33 „

EVANS, LESCHER & WEBB

60 Bartholomew Close, LONDON.

Liverpool: EVANS, SONS & CO.

Montreal: EVANS, SONS & MASON.

AGENTS:

JAMIESON & CO., Produce Exchange, Sussex Street, Sydney.

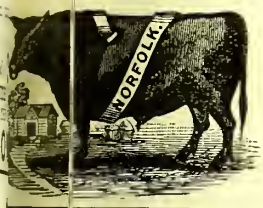
ALFRED WHITE & SONS, LATE T. R. & A. WHITE, **MANUFACTURING CHEMISTS,**

Manufacturers of Acids, Æthers, Sp. Æther. Nit., Sp. Ammon. Arom., Liq. Ammon., Soldering Solution, &c., and preparations of Alum, Animal Charcoal, Antimony, Baryta, Bismuth, Strontia, Zinc, &c.

CASTLE STREET, SAFFRON HILL, E.C.

Works:—WEST DRAYTON, MIDDLESEX. Telegraphic Address:—"ETHER METHYLATED LONDON."

THE "NORFOLK" VETERINARY REMEDIES are the result of 40 Years' large practice,



And have an enormous sale in virtue of their superior quality and moderate price. Used on the Royal Farms, and by thousands of Cowkeepers, Flockmasters, and Farmers in the kingdom. The leading Remedies are The "NORFOLK" CONDITION DRENCHES for Cows, Bullocks, or Sheep; a sure preventive of Fever, Blood Diseases, and ordinary ailments; 9s. per dozen, 3 dozen 22s. 6d. The "NORFOLK" CORDIALINE, or PAIN KILLER, the most powerful Restorative known for Horses, Cattle, or Sheep in Colic, Calving, Lambing, &c.; 12s. per dozen, or 3 dozen 31s. 6d. The "NORFOLK" RED WOUND OILS, a rapid and sound cure for all Kicks, Cuts, Accidents, &c.; 3s. 6d. per pint, or 36s. per dozen. The "NORFOLK BROWN SPRAIN OILS, for Lameness, Old Swellings, Rheumatism, &c.; 3s. 6d. per pint, or 36s. per dozen. Usual discounts to the Trade, and special terms for Shipping Orders. Manufactured for the Proprietor only by

F. SUTTON & CO., Chemists, NORWICH, ENGLAND.

PINE'S DEVONSHIRE OILS

PRICE
dozen, 18/6
" 12/6
" 21/6
" 10/6
Per doz. net in Wine Bottles. CARRIAGE PAID. Single Sample Bottle, 1/9.

FOR HORSES, COWS, SHEEP, AND LAMBS.

THESE CATTLE OILS *are prepared from the Original and Valuable Recipe of* WILLIAM YOUATT PINE, and are *unsurpassed*, their great sale being a sufficient guarantee of their EXCELLENCE.

PREPARED AND SOLD WHOLESALE BY

WALTER GREGORY, 31 Fore Street, WELLINGTON, SOMERSET.

CAUTION.

A. S. LLOYD'S EUXESIS,

FOR SHAVING WITHOUT SOAP, WATER, OR BRUSH.

The GENUINE Euxesis bears the following distinctive marks:—

1.—My full name AIMÉE LLOYD on cap of tube.

2.—The words "Prepared only by his Widow" and my signature of AIMÉE LLOYD in RED INK across labels, in addition to my late Husband's signature in black ink.

AIMÉE LLOYD (WIDOW OF A. S. LLOYD, formerly of 27 GLASSHOUSE STREET,)

3 SPUR STREET, LEICESTER SQUARE, LONDON.

A. S. LLOYD'S EUXESIS,

For Shaving without Soap, Brush, or Water.

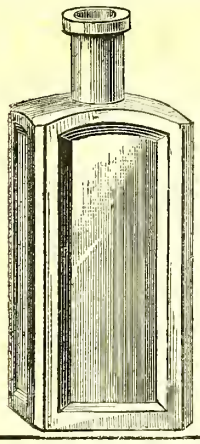
CAUTION.

The only Genuine has a yellow label printed ONLY in Black Ink, and bears the original address of the late inventor, "27 Glasshouse Street, Regent Street," the proprietors having purchased, under an administration suit, the Secret, Trade Mark, Goodwill, and Premises.

SOLE PROPRIETORS,

F. HOVENDEN & SONS,

LONDON.



FOR SPECIALITIES!

PANELLED FLAT BOTTLES

IN WHITE-OPAL AND TURQUOISE-BLUE OPAQUE GLASS

These Bottles are very handsome in appearance, and are well suited for SPECIAL PREPARATIONS especially for those which are likely to contain a sediment, as this glass is NOT TRANSLUCENT.

PRICES AS UNDER:—

2-oz.	3-oz.	4-oz.	6-oz.	8 oz.
15/-	16/-	18/6	24/-	28/- per gross.

The above can be also supplied in White Flint or Pale Green Glass at lower prices, and being made LARGE APPEARANCE, they are useful for many and varied purposes.

E. A. HEARN & CO., Manufacturers of Glass Bottles of every description in any Colour, Plain or Stoppered.

381-3 KINGSLAND ROAD, LONDON, E. [1]

REGISTERED TRADE MARK

THE DISPENSING BRAND AND OTHER BOTTLES

Indentors should order the W brand; they are the best metal and make in the market; have a worldwide reputation. Can be obtained through any Wholesale House.

TRADE MARK GOVERNMENT DISINFECTANT

GOVERNMENT DISINFECTANT

CARBOLIC POWDER (PINK) in 1 Cwt. 2 Cwt. CASKS 1lb & ½ Packages

CARBOLIC POWDER (PINK, in TINS 6d & 1/- | CARBOLIC SOAP No 1 No 2

CARBOLIC FLUID in 6d 1/ & 1/6 STOPPERED BOTTLES | CARBOLIC & GLYCERINE SOAP in ¼

FREE FROM POISON AGREEABLE IN SMELL. THE GOVERNMENT SANITARY Co., TO BE HAD FROM WHOLESALE DRUGGISTS

LONDON E.

QUITE A NOVELTY.

Styles 11A and 14A of Shirley's **A1 BRAND MENTHOL CONES** can now be had with following *Views along the back of the cases*:—Westminster Abbey, Tower of London, St. Paul's Cathedral, Windsor Castle, Westminster Bridge, and Houses of Parliament.

The full directions as to uses, &c., of the Menthols are printed on one side and the view on reverse. The views are beautifully engraved, and render the cones the most salable yet introduced. *Country and Colonial* buyers should not miss this opportunity. No extra charge.

11a, 3/6 per dozen; 14a, 6/3 per dozen.

ARTHUR W. SHIRLEY (LATE J. G. SHIRLEY), 30 PATERNOSTER SQ., LONDON, E.

HARTMANN'S HYGIENIC WOOD WOOL DIAPERS

Used in all the Principal Hospitals and Recommended by the Medical Profession.

For Home Use, Delicate Health, Accouchement, and for Ladies Travelling, they are *invaluable and indispensable*. They are Soft, Light, Antiseptic, are supplied at the Actual Cost of Washing. Supplied by Chemists, Ladies' Outfitters, and Drapers.

Advertised at 1/- and 2/- per dozen. To Chemists, 9/6 and 19/- per gross. Pamphlets and Showcards on application.

The SANITARY WOOD WOOL CO., LIM., 11 HATTON GARDEN, LONDON.

MEUPHROSINE.

The Only Absolutely Safe and Certain Cure in all cases of

SLEEPLESSNESS

Caused by Nervousness, Overwork, &c.

Guaranteed to contain no Opium, Chloral, Morphia, Bromide, or Alcohol.

Does not affect the Heart's action nor disturb the Brain.

Price per Bottle, 2s. 9d.; post free, 3s.

Of all Chemists and of the Proprietors and Manufacturers,

S. RATTI & CO.,

3 Jeffrey's Square, St. Mary Axe, London, E.C

PURE

SPIRITS OF WINE

60 o.p., 20/3 per gall.; 56 o.p., 19/9 per gall.

1/ *per Gall. Discount for Cash with order.*

Further allowance for quantity. STEAM SALS ONLY

GEORGE PHILLIPS & CO.,

ST. ANDREW'S DISTILLERY, CLERKENWELL RD

LONDON, E.C.

EVER FAILING! SELF ADJUSTING!! PATIENCE SAVING!!!

H BARRETT'S NEW PATENT BOTTLE.

THE ONLY REALLY PERFECT CAPPED BOTTLE FOR VASELINE, POMADE, DRY POWDERS, &c.

Prices—2 oz. 25/-, 3 oz. 28/-, 4 oz. 32/- per gross.

mists' and Perfumers' Bottles in great variety, Plain or Stoppered. Orders may be sent to the PRINCIPAL WHOLESALE HOUSES.

R. H. BARRETT,

FLINT GLASS BOTTLE WORKS,

THE OVAL, CAMBRIDGE HEATH, LONDON, E.

Telegraphic Address—"FOREFRONT LONDON." [2]

J. A. CURLE, Wholesale & Export Bottle Manufacturer

Druggist, Sundry and Perfumery Bottles of every description, Plain and Stoppered, in White, Blue, Amber, Actinic, Green, and other Colours. Also Metal-capped Pomades and Screw-necked Feeding Bottles in Green or White Glass.

MOULDS MADE TO ANY PATTERN.

PERSEVERANCE GLASS WORKS, Homer Rd., South Hackney, LONDON, E.

MEDAL 1884. ONLY AWARDED FOR THIS QUALITY

CHLORIDE OF LIME!

IN AIRTIGHT WATERPROOF & ODOURLESS PACKAGES.

INVENTORS AND MANUFACTURERS NATIONAL CHEMICAL Co. LONDON

THE N. C. Cos. PACKAGES HAVE STOOD THE TEST FOR MANY YEARS, AND CAN ALWAYS BE RELIED UPON TO GIVE SATISFACTION.

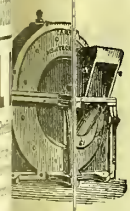
KEPT IN STOCK BY ALL WHOLESALE DRUGGISTS &c. SEE THEIR PRICE LISTS

SILVER MEDAL, I.H.E. 1884.

BEWARE OF OTHER SO-CALLED AIRTIGHT PACKAGES.

ALTER'S DISINTEGRATORS

Will pulverise, Granulate, or Shred almost any Mineral, Vegetable, or Animal Substance.



NEARLY 1,100 IN USE

IN ALL PARTS OF THE WORLD.

For Grinding Sugar, Bark, Linseed, Ginger, Pepper, Spices, Salt, &c., this Machine is invaluable. Made in 9 Sizes. Illustrated Catalogue may be obtained on application.

Samples of ANY Material will be Ground free of charge.

HARRISON CARTER, 82 MARK LANE, LONDON; and PARIS.

Telegraphic Address—Milling London.

BEST BOTTLES AT THE LOWEST PRICES.

H. & CO. BRAND.

THE

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(H. HARRIS & CO., Proprietors),

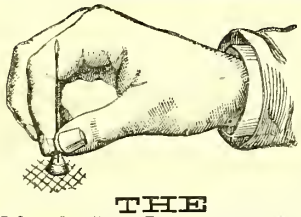
UPPER THAMES ST., CITY, LONDON, E.C.

HAVE REDUCED THEIR PRICES AS FOLLOWS:

oz., 6/6 per gross; 6 and 8 oz., 7/6 per gross; 12 oz., 11/6, plain or ed; White moulded Phials, ½ oz., 3/6 per gross; 1 oz., 4/ per gross; 6 per gross; 2 oz., 5/ per gross; Feeding Bottles, The National, ittings and screw Stoppers, 3/6 per dozen, or 40/ per gross.

attention to Country Orders. A Sample Bottle of any kind forwarded free on application.

ablished 50 years. *Bankers—London and Westminster.*



Trade Mark. Registered.

THE

ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,

12 PALL MALL EAST, LONDON, S.W.

SOLE AGENTS FOR DR. WARLOMONT'S CALF VACCINE.

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.

HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Tubes, two-thirds full, 1s. 8d. each; Tubes one-third full and Lancet-charged Points, 1s. each; Pin-points, 1s. 1d. each. Eighteen Charged Small Points, 5s. Tubes two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccinations daily, between the hours of 12 and 2, by the Consulting Physician, at the uniform fee of a guinea. P.O.O.'s (including postage, and crossed London and Westminster Bank), with orders, payable to

EDWARD DARKE, Secretary.

Office hours, 10 to 4 Saturdays, 10 to 2

AYRTON & SAUNDERS

Designers and Manufacturers

OF

High-Class Artistic Specialtie

FOR CHEMISTS AND DRUGGISTS;

WHOLESALE AND EXPORT DEALERS IN

PATENT LINT, PLAISTERS, AND COTTON VOOL

MEDICAL GLASS BOTTLES,

SURGICAL INSTRUMENTS, TRUSSES &

HARD AND SOFT WOOD TURNERS

MANUFACTURERS OF ROUND, SQUARE, AND OVAL OXE

IN PAPER, WILLOW, AND CHIP;

IMPORTERS OF

AMERICAN, GERMAN, & FRENCH BOXES

AND GENERAL DEALERS IN

DRUGGISTS' SUNDRIES of every descriptic.

SPECIAL QUOTATIONS TO LARGE BUYERS FOR ASI

WAREHOUSES—
149 & 153 DUKE ST.

AYRTON & SAUNDERS IXL TRADE MARK

FACTORY—
62 PARR STREET

LIVERPOOL.

All Letters, Orders, &c., to be addressed to the Firm, 149 DUKE STREE

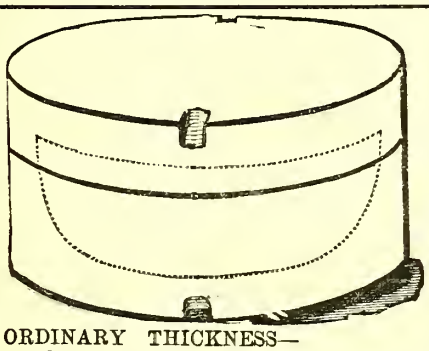
AYRTON & SAUNDERS will be glad to undertake Foreign Agencies a Com missions, and to buy and ship for Firms who have no representatives in England and they keep themselves thoroughly abreast of the times their friends can rely up bein well posted up in all the Novelties and Specialities that are being constantly introd ed.

WILLIAM TOOGOOD'S
SPECIALITIES.

AREHOUSE AND SHOW ROOM,
BURLINGTON BUILDINGS,
DDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S
MPROVD PATENT
ARTHENWARE
VERD POTS

laimed to e the most perfect
venient y offered to the Trade.



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

ORDINARY THICKNESS—

1 dr.	2 dr.	½	¾	1	1½	2	3	4	6	8 ounces.
1/6	1/6	1/6	1/7	1/8	1/10	2/2	2/10	3/4	4/6	5/6 per doz.

THIN for DISPENSING—

½	¾	1	1½	2	3	4	6	8 ounces.
1/7	1/8	1/10	2/-	2/4	3/-	3/8	5/-	6/- per doz.

TOOGOOD'S
RNT IN POTS,
OLD CREA TOOTH PASTE, &c.

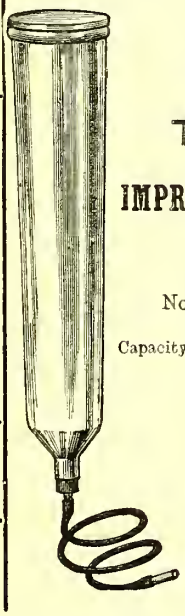
TOOGOOD'S
UATE MEASURES.

TOOGOOD'S
OOD-TO CORK BOTTLES

TOOGOOD'S
ICAN SQUARES.

TOOGOOD'S
-SOLVNT BOTTLE.

TOOGOOD'S
SON BOTTLES.



TOOGOOD'S
IMPROVED PERCOLATORS.

Nos.	1	2	3	4	5
Capacity	12	25	66	100	160 ozs.
	2/	3/	4/6	6/	7/ each

NORMAN'S
PATENT PILL COATER

The cheapest and most efficient machine yet introduced, combining simplicity with portability, and enabling small quantities of pills to be coated with the same facility as large.

It speedily saves its own cost.

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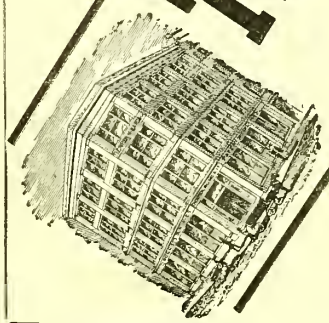

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which is in a revised form, giving greater facilities to Buyers; forwarded to all parts of the world on application.

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IMPORTANT TO PHYSICIANS, SURGEONS, & CHEMISTS.

ROYAL BALSAMIC

PLAISTERS

MANUFACTURED BY WILLIAM MATHER,

e manufactured of the same kind of ingredients as those sanctioned and ordered by Dr. Andrew Smith, Director-General of Her Majes's Army and Navy Ordnance Medical Department, for the use of the Soldiers and Marines in Scutari Hospital.

LEATH PLAISTERS.	No.	Full Size of Leathers.	Retail Prices.	Per doz.	Royal Balsamic Plaister.	Cod Liver Oil.	Plain Plaister.	Emp. Roborans or Calefaciens	Emp. Belladonna. No. 1.	Emp. Belladonna. No. 2.
		Inches.	d.		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
art Shap	1	3 × 4½	1 size.	„	0 8	0 8	0 8	0 8	1 4	1 0
	2	4¼ × 6	1½ „	„	1 0	1 0	1 0	1 0	2 0	1 6
	3	4½ × 7½	2 „	„	1 6	1 6	1 4	1 4	2 8	2 0
	3½	5½ × 7¾	3 „	„	2 3	2 3	2 0	2 0	4 0	3 0
	4	6½ × 8½	4 „	„	3 0	3 0	2 8	2 8	5 4	4 0
	5	8 × 9¾	6 „	„	4 6	4 6	4 0	4 0	8 0	6 0
ng Shape	1	2¾ × 4	1 „	„	0 8	0 8	0 8	0 8	1 4	1 0
	2	4¼ × 6¾	2 „	„	1 6	1 6	1 4	1 4	2 8	2 0
	2½	4¼ × 8¼	3 „	„	2 3	2 3	2 0	2 0	4 0	3 0
	3	5¼ × 9¼	4 „	„	3 0	3 0	2 8	2 8	5 4	4 0
	4	6½ × 11	6 „	„	4 6	4 6	4 0	4 0	8 0	6 0
	5	7½ × 14½	8 „	„	6 8	6 8	6 0	6 0	12 0	8 0
al Shape	1	4¼ × 6½	2 „	„	1 6	1 6	1 4	1 4	2 8	2 0
	2	6¼ × 8½	4 „	„	3 0	3 0	2 8	2 8	5 4	4 0
	3	7¾ × 9¾	6 „	„	4 6	4 6	4 0	4 0	8 0	6 0
dle ape	1	6¼ × 12¼	6 „	„	4 6	4 6	4 0	4 0	8 0	6 0
	2	7 × 15	8 „	„	6 8	6 8	6 0	6 0	12 0	8 0
	3	8 × 16	12 „	„	8 8	8 8	8 0	8 0	15 6	12 0
ist WRIST PLAISTER	1	3 × 10½	3 „	„	2 3	2 3	2 0	2 0	— —	— —
KNEE PLAISTER	2	4¼ × 15	6 „	„	4 6	4 6	4 0	4 0	— —	— —

BREAST PLAISTERS.	No.	Size of Leather	Retail Prices.	Per doz.
			d.	s. d.
Em Plumbi, for Ladies' Breasts	1	Diam. 6¾ in.	4 size	2 8
p. Plumbi, f Ladies' Breasts	2	„ 7½ „	6 „	4 0
ditto ead on Chamois	1	„ 6¾ „	.. ..	4 0
ditto ditto	2	„ 7½ „	.. ..	6 0

BREAST PLAISTERS.	No.	Size of Leather	No. 1 Quality. Per doz.	No. 2 Quality. Per doz.
			s. d.	s. d.
p. Belladonna for Ladies' Breasts	1	Diam. 6¾ in.	5 4	4 0
ditto	2	„ 7½ „	8 0	6 0
ditto pread on Chamois	1	„ 6¾ „	8 0	6 0
ditto ditto	2	„ 7½ „	12 0	9 0

SPITAL PLAISTER, on Black Cloth, 16 in. wide, doz. yds. 8/0
„ „ on White „ „ „ 8/0
ry other description of Plaister used in Pharmacy or Private Formulæ read on any material, to suit any climate.

PLAISTERS, SPREAD.—Prices per Dozen Yards.

16 Inches in width.

NAME	Glazed Cloth	Unglazed Cloth	Linen	Swansdown	Moleskin	Skins of Leather
Emp. Adhæsivum Opt.	4/0	5/6	10/0	10/0	20/0	4/0
„ Adhæsivum	3/2	..	..	..	..	..
„ Ammon. c. Hydrarg	16/0	..	..	30/0	36/0	5/6
„ Antim. Pot. Tart.	10/0	..	..	24/0	30/0	4/0
„ Belladonna	13/3	15/0	24/0	24/0	30/0	5/6
„ Calefaciens	5/8	6/4	11/3	11/3	22/6	..
„ Cerat Saponis	6/6	7/6	12/0	12/0	22/6	..
„ Dreadnought	9/0	10/0	14/0	14/0	24/0	4/6
„ Elemi	9/0	10/0	14/0	14/0	24/0	4/6
„ Ferri	9/0	10/0	14/0	14/0	24/0	4/6
„ Galbani	14/0	..	..	24/0	30/0	4/6
„ Hydrarg.	14/0	15/0	18/0	18/0	27/0	4/6
„ Iodine	16/0	..	..	30/0	36/0	5/6
„ Opii	18/0	20/0	27/0	27/0	36/0	5/6
„ Picis Co.	11/0	12/0	15/0	15/0	24/0	4/6
„ Plumbi	5/6	6/6	12/0	12/0	21/0	4/0
„ Potass. Iodid.	16/0	..	..	30/0	36/0	5/6
„ Resinæ	5/6	6/6	12/0	12/0	21/0	4/0
„ Roborans	5/0	5/8	10/0	10/0	20/0	..
„ Saponis Alb.	5/6	6/6	12/0	12/0	21/0	4/0

MANUFACTURED BY W. MATHER,

YER STREET, HULME, MANCHESTER, ENGLAND.

PRICE LISTS SENT ON APPLICATION.

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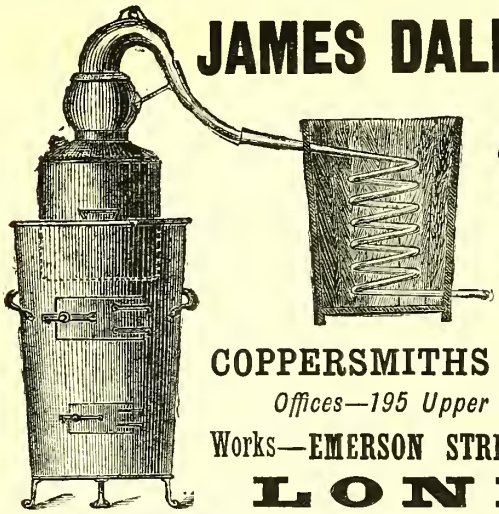
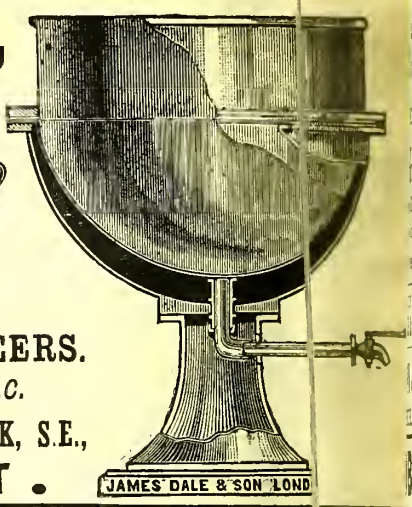
JAMES DALE & SON,





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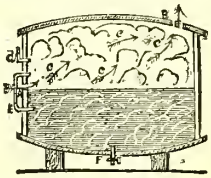

NEW METHOD OF MAKING VINEGAR,

BY THE REVOLVING APPARATUS
(Michaelis' Patent).

For further particulars
See the Chemists' and Druggists' Diary, 1884, page 274,
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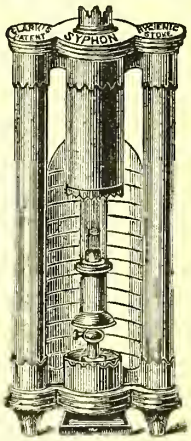
40 inches high, 18 inches wide.



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GAS HEATING STOVES.
NO FLUE REQUIRED.

No smoke. No smell. No [illegible] or trouble. No danger. All sulphurous vapours are condensed inside the Stoves, and pass off as a liquid into tray beneath. The Only SAFE ones for use in Hospitals, Sick Chambers, Greenhouses, Bedrooms, Halls, Shops, Offices, Churches, Schools, &c. *BEWARE OF IMITATIONS.*

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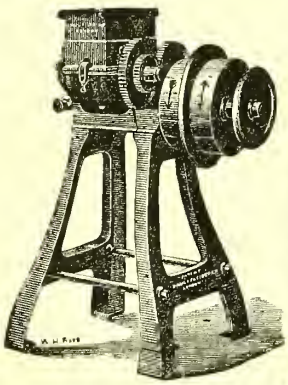

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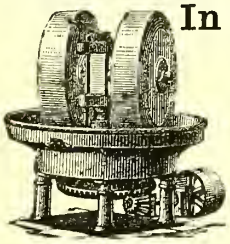
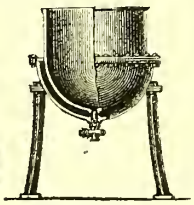


Edge Runner Mill for Pulverising, &c., &c.



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Granite Roller Grinding Mills,
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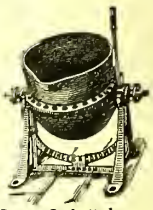

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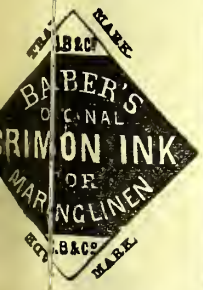

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cleansing and preserving Boot Tops, totally eradicating all stains, and restoring their original colour.

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cream to be used after the Fluid to polish the Top. It also nourishes the Leather.

BOOT TOP POWDERS.

IN ALL COLOURS.

These Powders have been before the public for 30 years, giving the highest satisfaction, keeping Boot Tops equal to new. These Powders never turn Black.

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This preparation is for softening and preserving all kinds of **Saddles, Bridles, Driving Reins,** and every description of Brown Leather. It cleans, softens, and imparts a handsome appearance.

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A POLISH, EQUAL TO PATENT LEATHER,

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For restoring and preserving all kinds of Patent, Enamel, and Morocco Leather; also Brown Leather Boots, &c. It renders them perfectly elastic. It will not attract heat. Likewise for cleaning and restoring Oil Paintings, Carriage Panels, &c. For French Polished, Japanned, and Varnished Goods it will be found unequalled.

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WARRANTED NOT TO CRACK.

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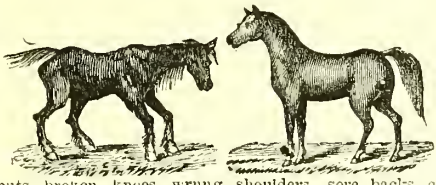
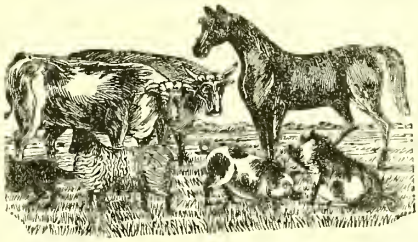
Cures horses' brittle and shelley feet, sand cracks, seedy toes, diseased frogs, fever, quittor, rapidly increasing the growth of the horn, and preventing horses throwing their shoes, making the hoof tough, and prevents all lameness. This preparation is warranted to cure all the above diseases, has been before the public for 30 years, and never known to fail. No owners of horses should be without this invaluable preparation.

MARVELLOUS EMBROCATION.

FOR HORSES AND CATTLE.



Takes away all soreness, and gives immediate relief and speedy cure in cases of lameness, bruises, sores, sprung sinews, sprains, enlarged joints, overreach, splints, curbs and wind galls, also cuts, broken knees, wrung shoulders, sore backs, chapped heels, sore throats, influenza, and rheumatism.



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Fever, Cough, Diuretic, Astringent, Condition, and Alterative.

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For Flatulent and Spasmodic Colic.

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For Shivering, Dulness, &c.

CRACKED HEEL LINIMENT.
For Horses.

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Cures Bronchitis, Sore Throats, Rheumatism, Lumbago, Wheezing in the Throat or Chest, Sciatica, Sprains, Bruises, &c.

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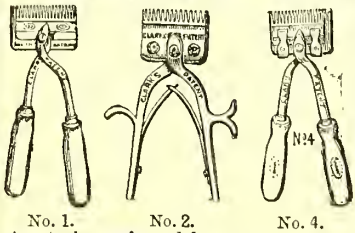

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No. 2.—One-handed Clipper for heads, manes, quarters, and difficult parts, leaving one hand at liberty to hold the horse, thus enabling the clipping to be performed by one man only. This Clipper is also used for cutting the human hair.

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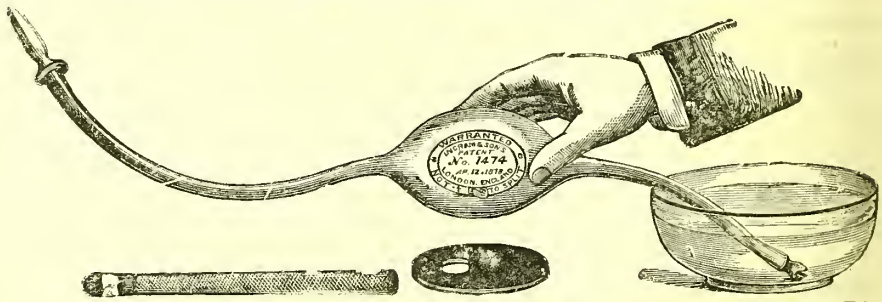

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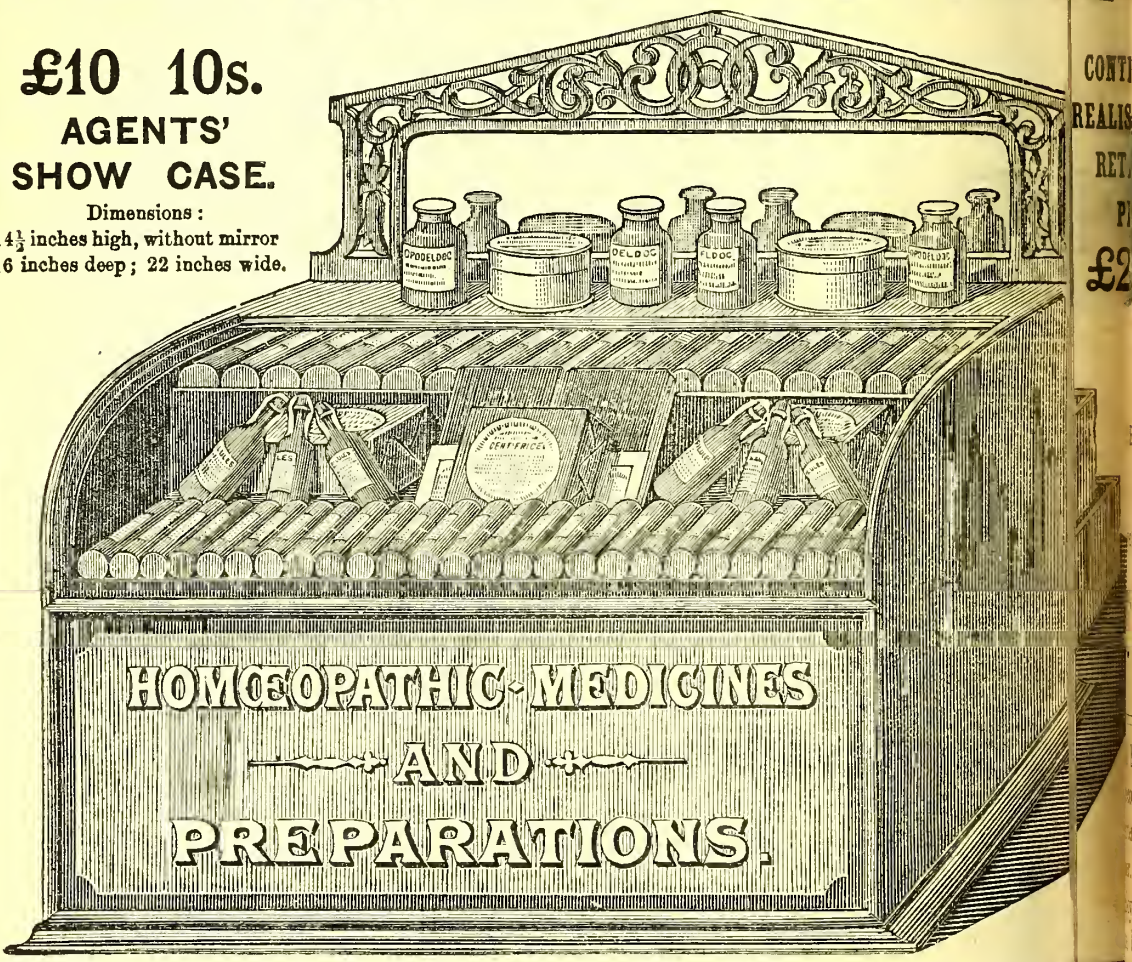

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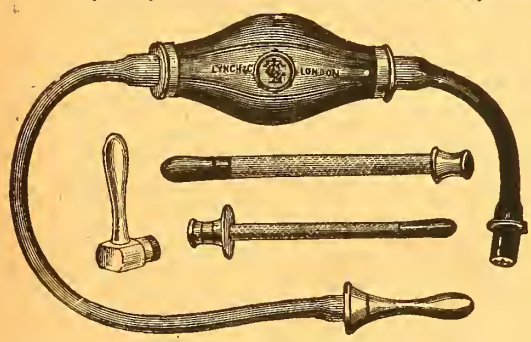

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Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms, where business of a confidential nature requires the especial attention of a London agent.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

PARSON C. BAKER,

8 STOCKBRIDGE TERRACE, S.W.

(CLOSE TO VICTORIA STATION),

Twenty-five years' experience, Transfer, Wholesale and Retail

FOR disposal—(1) Old-established, London; good profits; low rent; returns £400; price £200. (2) Old-established, Country; returns £450; net profit £200; price £250. (3) Increasing Business, rapidly improving, seaside; no opposition; returns £600; price £400. (4) Best thoroughfare, large Midland town; returns over £800; valuation of stock and fixtures. (5) Fine position, county town; returns £1,000; rent £46; good profits; valuation of stock and fixtures.

WANTED to purchase; £1,000 to £1,500; town or country.

TENDERS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

FULHAM VESTRY.

TO MANUFACTURERS OF DISINFECTANTS.

NOTICE is hereby given, that the Vestry of the Parish of Fulham will be prepared, at their meeting, to be held on Wednesday, the 7th day of March, 1888, to receive Tenders for the supply of Disinfectants for the twelve months ending 25th March, 1889.

Tenders must be made on printed forms provided by the Vestry, sealed and endorsed "Tender for Disinfectants," and delivered at the Vestry Office by 4 o'clock, P.M., on Wednesday, the 7th March, 1888.

The Vestry does not pledge itself to accept the lowest or any Tender.

(By Order.) CHAS. J. FOAKES,
Clerk to the Vestry.

Vestry Offices, Walham Green, S.W.,
22nd February, 1888.

BUSINESS WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

A THOROUGHLY reliable Business, unopposed preferred, in a healthy locality in Gloucester or adjoining county, returning about £400 or £500; good introduction required. Address, stating full particulars, H., Fairford, Gloucestershire.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

LONDON, E.—An old-established Shipping and Retail Business in main thoroughfare, centrally situated for the docks; to be sold cheap. Apply, F., Messrs. Baiss Brothers & Co., 4 Jewry Street, Aldgate, E.C.

NORTH HANTS.—Small Drug Business in market town; returns about £200; rent low, £16; good opening for person with small capital, as a comfortable living can be made. Address, in first instance, F. W., 100 Brompton Road, S.W.

TO be Disposed of, with immediate possession, old-established Chemist's Light Retail and Dispensing Business, in most healthy and beautiful town, borders of Shropshire; for cash valuation or reasonable offer; rare opportunity for beginner; no agents answered. For cards to view, apply "Veritas," care of Secretary, Infirmary, Shrewsbury.

LIVERPOOL (in one of the best suburbs) A Light Retail and Dispensing Business in a first ss ne bourhood; well fitted and stocked; returns ly £600; price £580. Apply, A. B., Messrs. Evans, & Co., 56 Hanover Street, Liverpool.

WANTED, an offer for an old-establishe Business; stock, fixtures, &c., about £150; lock-up op; good opening for dentistry; now under management; od reason for disposal; no reasonable offer refused. A ly, X 184, *Guardian* Office, Cross Street, Manchester.

A BARGAIN.—For immediate disposa an old-established Retail and Dispensing Business a leading Cheshire town; returns £800 per annum (un manage ment); price £400; satisfactory reasons for disp l. Apply, "Cheshire," care of 45 Farringdon Road, Londo

CHEMIST'S; old-established; market th ughfare, S.E.; excellent house; moderate rent; lon ease; only one other in road; splendid opportunity. Ad ss, "Menthol," Office of THE CHEMIST AND DRUGGIS 42 Cannon Street, London, E.C.

CHEMIST'S Business, London, W., w a good opening for a large medical practice; es lished six years; receipts over £900; profits between £50 nd £600 a year; good introduction given; price £600 Chemist's Business, London, N.; established 1828; rece s between £500 and £600; price, a year's income. Apply t m. Hornbrook, 17 Bloomsbury Street, Oxford Street, W.

CHEMIST and Dental Surgeon's Busine £200, first reasonable offer; stock and fixtures orth m than the price asked; handsomely fitted shop; gi l positi established 35 years at 9 Brushfield Street, ishopgate Street, City; valuable lease, nice house; re only £4 worth £75; splendid investment. Batcheler, uction Dalston Junction. Stamp.

CHESHIRE.—A genuine Light Retail ug Busi ness at Frodsham; good profits; now u r man ment; could be doubled by principal; increasi neighbo hood and healthy situation; making great imp ements i house; rent £25; price £200; strict investig n and spection invited. Apply, Geo. Marshall, Chemist d Den Runcorn.

OLD-ESTABLISHED (late Burnham), 4 Mile End Road, opposite the Palace; fitted; no o sition; premium; densely populated neighbourhood xception opportunity for a business man; good house, mmand premises, part of which could be let off; rent l; lease or agreement. E. I. Nicol, 216 Jubilee Street, Mil nd, E.

IMMEDIATELY, having purchased larg busi a good-class, unopposed Retail and Prescrit Busi in Kent, about 30 miles from London, returning early £500 at full prices; rent only £17; long lease; 7 ro and gar den; only £350, or reasonable offer; every estigat allowed. Apply at once to "Kent," Office of T CHEMIS AND DRUGGIST, 42 Cannon Street, E.C.

CHEMIST AND DRUGGIST'S.—Unt al oppor tunity for obtaining a Business, establis l over 25 years in working neighbourhood, near Rotherh Station no other chemist near; dispensary might be ad tageously added; house contains 9 rooms; excellent shop d garde rent only £28 a year; price for fixtures, &c., onl 80; stock optional. Apply, Mr. Salmon, 20 City Road, Fin ry Square

GENUINE Mixed Retail, returning over 00 ca proprietor having other business engagem is co pelled to sell; strictest investigation allowed; nate in a busy thoroughfare in the Pottery district; tra pass close to door; premises leased at low rental; this splen opportunity for a pushing young fellow; retu could considerably increased, and would give free rices for introduction. Apply, first instance, "Chemi care J. G. Fenn, Stationer, &c., Stoke-on-Trent.

SITUATIONS OPEN.

6d. for ty words; 6d. for every 10 words beyond.

IIOR Improver wanted, at once; outdoor. . Harve Chemist, Retford.

NTED, n Assistant; age about 24; good re- ferences. Apply to Penrose & Son, 5 Amwell Street, ville, E.

PENSE ; qualified; good experience; capable f taking arge of the department. J. S., 135 Queen's Brightor

NTED, n energetic Manager; qualified; single. Apply, s ing age, terms (indoors), to J. D. Williams, aceutica Chemist, Bodmin.

SIDE SON, Ormskirk, Lancs., have a acancy f a youth who has had two or three years' nce; ou oors; mixed country business.

OD J ior, outdoors; one used to the Store rade pre red. Apply, with references, salary required, d height o Blunt's Drug Stores, Northampton.

NTED, once, qualified Assistant for Dispens- ng dep ment, Haymarket Stores; hours 9 to 7; r. App by letter only, stating salary and other lars, "T Chemist," 28 Haymarket, S.W.

NTED, n Assistant (indoors), accustomed to a nixed tr e. Apply, stating age, references, height, required and when at liberty, to J. C. Arnfield, t, Stock rt.

NTED, n Assistant, aged not under 22, with a good pra cal knowledge of dispensing. Apply, giving rticulars Clay & Abraham, Liverpool. Applications mptly a wered may be considered declined.

ES J KSON & CO., Chemists and Dry- lters, re ire an Assistant; hours 8 A.M. to 9 P.M. days 11 no Sunday duty. Apply, J. C. Hart, ion Stre Southwark, London, S.E.

industr us and experienced Junior, not less han 22, t ake entire charge of a Branch till disposed od refer es required; liberal salary. Apply person- r by let , E. L. Henry, M.P.S., 32 Loampit Vale, am.

IPETE T Assistant; outdoor; preference given one wh has had experience in a first-class dispens- ablishme . Apply, by letter, to H. C., care of Hodg- s, Treach & Clarke, 198 Upper Whitecross Street, E.C., ng carte

NTED, n Improver or Junior Assistant; easy hours, n unday duty; shall make strict investigation characte Applicants to state salary required, and photo f convenient), which shall be returned. ager," 5 rfolk Street, King's Lynn.

DOOR arly in March, an Assistant for retail ounter; good salesman, used to quick serving, and g a perm ency; must have good reference from last yer; sal £7 per month; also a Junior. Apply, age, he t, and enclosing carte, Wand's Drug Store, t, Leicest .

DK. G BSON, Chemist, Gooch Street, Bir- ingham, equires an active, industrious Assistant; £30; n st be well recommended, steady, reliable, le to ta charge in absence of principal, who lives An Ap ntice also wanted.

AT once, a Married Man for Branch business, to live on the premises; unfurnished rooms, and gas found; salary £70 per annum, and commission on extra business; he must be a good teeth extractor, prescriber, and a pushing salesman; unexceptionable references required; an abstainer preferred. Apply, J. Flemons, Dunstable.

WILLIAM HESELTINE & SON, Wilson Street, Finsbury, E.C., are open to engage a first-class man to introduce and appoint Chemists as Agents for their Teas; liberal terms to one having necessary qualifications (see full page advertisement appearing in this issue). Apply by letter, as above, in first instance.

ASSISTANT, as Senior, where 4 are kept; Minor qualification; age not less than 24; a good counterman, and one accustomed to a brisk ready-money business preferred; half a day a week allowed for recreation; Sunday duty every fourth week; applicants will please state salary required, indoors, height, age; enclose photo. Jeans, Chemist, Pendleton, Manchester.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

ASSISTANT; 12 years' experience; ætat 27; can extract teeth. Portlock, Wotton-under-Edge, Glos.

MANAGER; temporary or otherwise; qualified; long experience. M. J., 344 Mare Street, Hackney.

TURNOVER or Improver; 20 months' experience; aged 16. Inquiries to R. C. Mason, Bromsgrove.

TEMPORARY, by the day or otherwise. G. F., 3 Selby Place, Leytonstone Road.

AS Assistant; aged 26; first-class reference. W. J. Pidduck, Lord Street, Southport.

MANAGER or Assistant, with view of succession. More, Bridgend House, Llanbadare, Aberystwyth.

MANAGER or Locum Tenens; 30 years' experience; disengaged. J. C. Collie, Drybrook, Gloucestershire.

WANTED, a situation, early in April, as dispenser to a surgeon; Wales preferred. George Parry, Douglas Hill, Bethesda.

IMPROVER; aged 26; time for study; town; references; abstainer. Cocker, Stationer, Ripponden, Halifax.

JUNIOR; 6 years' experience; aged 21; good references; disengaged March 6th, 1888. N. Prizeman, 23 Broadgate, Coventry.

JUNIOR; aged 21; nearly 5½ years' experience; height 5 feet 7 inches. Broadley, 24 Market Place, Kingston, S.W.

ASSISTANT or Branch Manager; aged 30; experienced; excellent references; disengaged. J. G. S., 451 Stockport Road, Manchester.

MANAGER or Dispenser, Chemist or Surgeon; temporary or permanent. Dunkerly, M.P.S., 88 Morton Road, Essex Road, Islington, N.

MR. S. SMITH, 4 Lodge Street, Bristol, takes Confidential Management during absence or illness; considerable experience in country business; distance no object.

AS Manager for Branch, with a view to succession after a time; Birmingham or district preferred; excellent references. A. P. S., 23 Lower Priory, Birmingham.

JUNIOR; aged 22; Minor qualification; good references; disengaged; London preferred. Apply, 163/7, Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

AS Assistant; outdoors; aged 32; several years' knowledge of the trade, principally Eastern Counties. B., 18 Well Street, Great Yarmouth.

AS Assistant or Dispenser; aged 25; height 5 ft. 7 in.; 9 years' experience; tooth extractor. E., 30 Kilburn Lane, W.

JUNIOR; aged 19; disengaged March 6; 4 years' experience; country preferred; salary £20. W. Russell, 131 King's Road, Chelsea, S.W.

IN France or Belgium.—Advertiser, aged 25 (qualified), 16 months' experience in English-French pharmacy in London, seeks an engagement; state salary, &c. "Chemist," 22 Stonenest Street, Holloway, London.

ASSISTANT, Branch Manager; temporary or otherwise; varied experience; reliable Dispenser; disengaged; terms moderate. "Chemicus," 16 Matthias Road, Stoke Newington, N.

TO DRUG MERCHANTS, &c.—Advertiser, 25, qualified, 5 years in Retail and same in offices of Wholesale Export Druggists, seeks responsible position, home or abroad. "Commerce," 61 Fairbridge Road, N.

ASSISTANT or Dispenser; Minor and Apothecaries' Hall qualifications; 9 years' experience; aged 24; disengaged; in or out door. W. T., 189 Upper Parliament Street, Liverpool.

CHEMISTS and Opticians.—Manager or Senior; outdoor; 14 years' first-class experience, 5 in last berth. State hours, &c, to "Chemicus," 2 Chaucer Villas, Chaucer Street, Nottingham.

TRAVELLER.—Advertiser wishes to represent Drug or Sundries house in Yorkshire and Midland counties, in conjunction with other occupation. Address, S. B., Office of the CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLER or Assistant; outdo ; aged 10 years' experience; for past 4 years ma ing hre retail and dispensing business; at liberty at nth's n excellent references, including present pin al. Ad B., Office of THE CHEMIST AND DRUGG , 42 C Street, E.C.

MISCELLANEOUS.

Special charges are made for Advertisements u r this head which can be obtained on applicati

DENTISTRY. — Wanted, instructio in Tak Impressions and Fitting Artificial Tee ; Lo Croydon. W. F., Messrs. Hearon & Co., 5 eman Str London.

PRELIMINARY AND MIN t.

ALL Students who are preparing hould s for particulars of a method of study wh will en them to pass with ease. Enclose stamped elope to M J. Tully (Hills Prizeman), Chemist, Hasting Est 1872. References to past and present Pu . 32 Pu passed the last Examinations.

STUDENTS' AIDS TO EXAMIN TION.

PRELIMINARY.—Arithmetic and M ric Sys 1*s*. How to Write an Essay, 3*d*. Cæsa imp Knotty Points in Latin Grammar, 1*s*. 6*d*. MIN .—E Simplified 1*s*. Illegible Autographic Prescri ns, 1 on Dispensing, 1*s*. Prescriptions given at Min Chemist," care of Mr. J. Edwards, Wye, Ken

THE ANGLO-FOREIGN BANKING OMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, hat S Warrant Coupon No. 30 of this Compa will be pa able, at the rate of 7*s*. per share, free of Inco -tax, on after 1st March.

Forms for Listing Coupons may be had o plication the Bank, 2 Bishopsgate Street Within, E.C.

By order of the Board,

WALTER BA ER, Secretary

February 23, 1888.

OUR WEEKLY SUPPLEMENT.

We have prepared a set of forms for small advertisements (sista wanted, businesses for disposal, Exchange column, &c.). With ese are attached tables of useful reference matter (Sale of Poisons, Postal nforma tion, Annual Licences, Metric Weights, Measures, Medicine Stam s, Law and Public Offices, &c.). We shall be glad to send one of these se to any subscriber who will send us an addressed postal wrapper (bearing a lfpenny stamp). As the object of this production is to encourage the ins tion o such advertisements as we have named in THE CHEMIST AND DRU IST, we hope this offer will be taken advantage of chiefly by those subscri rs who are willing to use this journal whenever opportunities occur.

OFFICES: 42 CANNON STREET, LONDON, E.C.